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TRANSCRIPT OF RECORD.

SUPREME COURT OF THE UNITED STATES.

OCTOBER TERM, 1923

No. 324

**THE IDAHO IRRIGATION COMPANY, LTD.; THE EQUI-
TABLE TRUST COMPANY OF NEW YORK, AND LYMAN
BROADES, AS TRUSTEES, ET AL., APPELLANTS,**

vs.

**FRED W. GOODING, NOVINGER & DARRAH SHEEP
COMPANY, LTD.; T. B. JONES ET AL.**

**APPEAL FROM THE UNITED STATES CIRCUIT COURT OF APPEALS
FOR THE NINTH CIRCUIT.**

FILED MAY 7, 1923.

No. 336

**FRED W. GOODING, NOVINGER & DARRAH SHEEP
COMPANY, LTD.; T. B. JONES ET AL., APPELLANTS,**

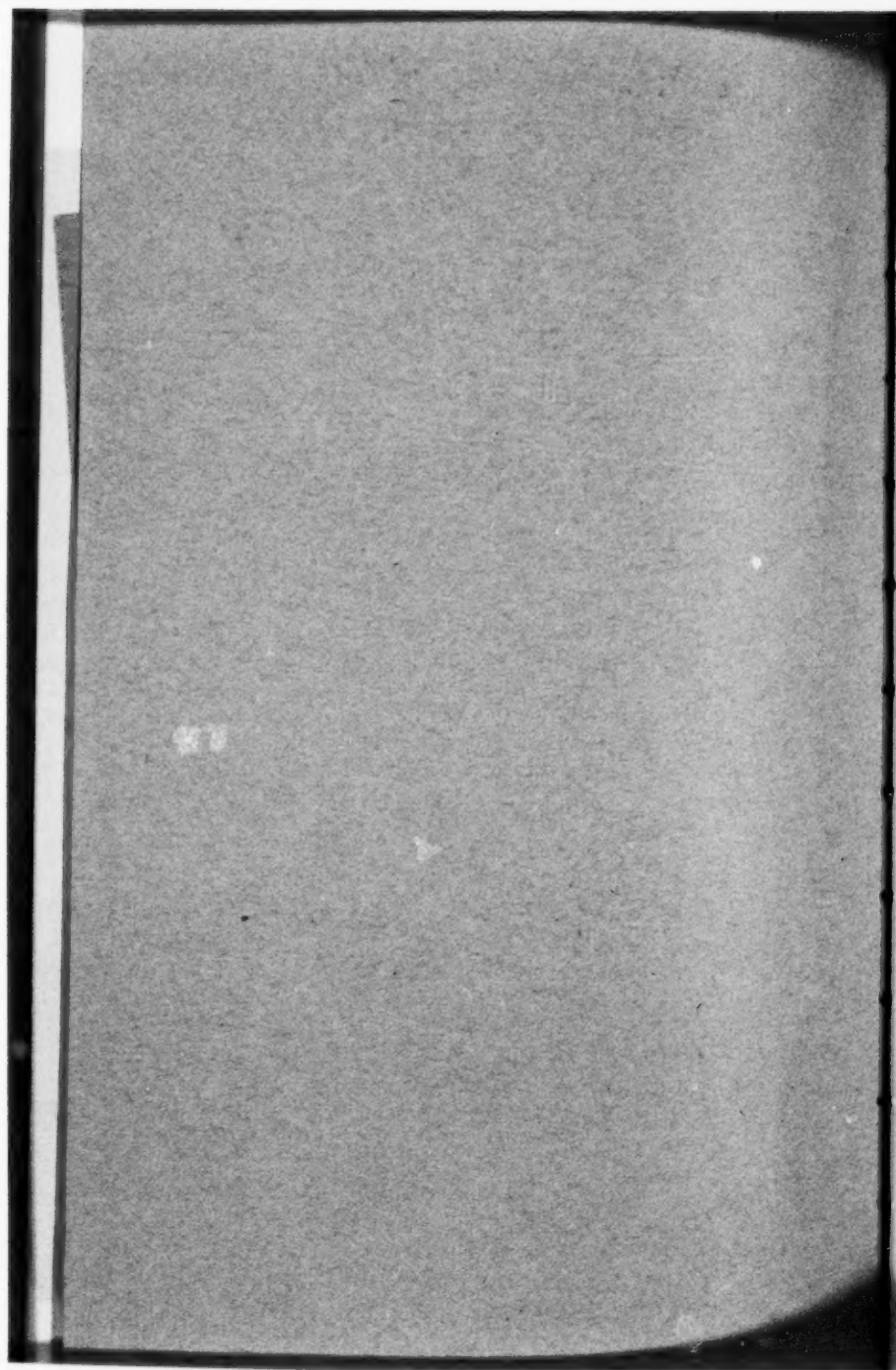
vs.

**THE IDAHO IRRIGATION COMPANY, LTD.; THE EQUI-
TABLE TRUST COMPANY OF NEW YORK, AND LYMAN
BROADES, AS TRUSTEES, ET AL.**

**APPEAL FROM THE UNITED STATES CIRCUIT COURT OF APPEALS
FOR THE NINTH CIRCUIT.**

FILED MAY 22, 1923.

(29,607, 29,638)



(29,607, 29,633)

SUPREME COURT OF THE UNITED STATES.

OCTOBER TERM, 1922.

No. 1057.

THE IDAHO IRRIGATION COMPANY, LTD.; THE EQUITABLE TRUST COMPANY OF NEW YORK, AND LYMAN RHOADES, AS TRUSTEES, ET AL., APPELLANTS,

vs.

FRED W. GOODING, NOVINGER & DARRAH SHEEP COMPANY, LTD.; T. B. JONES ET AL.

APPEAL FROM THE UNITED STATES CIRCUIT COURT OF APPEALS
FOR THE NINTH CIRCUIT.

No. 1083.

FRED W. GOODING, NOVINGER & DARRAH SHEEP COMPANY, LTD.; T. B. JONES ET AL., APPELLANTS,

vs.

THE IDAHO IRRIGATION COMPANY, LTD.; THE EQUITABLE TRUST COMPANY OF NEW YORK, AND LYMAN RHOADES, AS TRUSTEES, ET AL.

APPEAL FROM THE UNITED STATES CIRCUIT COURT OF APPEALS
FOR THE NINTH CIRCUIT.

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*In the District Court of the Fourth Judicial District
of the State of Idaho, in and for Lincoln County.*

FRED W. GOODING, NOVINGER & DARRAH
SHEEP COMPANY, LIMITED, a Corporation,
T. B. JONES, J. H. CULBERTSON, N. W. SINE,
W. L. BIGGS, LOUIS JOHNSON, C. B. HESS
and FRANK R. GOODING,

Plaintiffs,

vs.

THE IDAHO IRRIGATION COMPANY, LIM-
ITED a Corporation, THE EQUITABLE
TRUST COMPANY of New York, a Corporation,
and LYMAN RHOADES, as Trustees for the
Bond Holders of the IDAHO IRRIGATION COM-
PANY, LTD., and M. R. KAYES, as Trustee,

Defendants.

COMPLAINT.

Comes now here the plaintiffs and as and for their
cause of action against the defendants, The Idaho
Irrigation Company, Limited, a corporation, The
Equitable Trust Company of New York, a corpora-
tion, Lyman Rhoades as Trustee, and M. R. Kayes as
Trustee for the undisclosed bond holders of the Idaho
Irrigation Company, Limited, and as Trustee for the
stock holders of the Idaho Irrigation Company, Lim-
ited, complain and allege:

1.

That these plaintiffs, and each of them, are owners of land, embraced within the segregation of the Idaho Irrigation Company, Limited. That they and each of them hold shares of stock in the Big Wood Reservoir & Canal Company, Limited, the operating company mentioned in the contracts, between the State of Idaho and the Idaho Irrigation Company, hereinafter set out at length, and in the contracts between the Idaho Irrigation Company, Limited, and your settlers as individuals, a copy of which contract is also hereto attached, and set out at length, and more particularly referred to. That the rights of your plaintiffs, under and by virtue of the contracts hereinafter set out, are identical, and vary only as the name of the owner and the number of acres of land involved, and that they and each of them, together with all other settlers upon the project of the Idaho Irrigation Company, Limited, are interested in the outcome of this suit.

II.

That the Idaho Irrigation Company, Limited, is now and at all times hereinafter mentioned has been a corporation, organized and existing under and by virtue of the laws of the State of Idaho, organized, incorporated and operated as an irrigation construction company, under and by virtue of the laws of the State of Idaho, and formed and organized for the purpose of engaging in the business of irrigating

and reclaiming lands, under the provisions of that certain Act of Congress, approved on the 18th day of August, 1894, known as the "Carey Act," and of Sections 1613 to 1634, Revised Codes of the State of Idaho, being the Acts of the Legislature of the State of Idaho, accepting and applying the provisions of the said Carey Act; and the acts amendatory thereto; and as such corporation is now operating, owns and controls that certain irrigation project within the State of Idaho, known as the Idaho Irrigation Company's project, which said project is partly within Lincoln County, a more particular description of which said project is set out at length in Exhibit "B" hereunto attached.

III.

That the Equitable Trust Company is a corporation organized and existing under and by virtue of the laws of the State of New York, with its principal place of business at New York, New York, and doing business as a trust company, in said city of New York and elsewhere throughout the United States and particularly in the Counties of Lincoln, Blaine and Gooding, in the State of Idaho.

IV.

That the defendant Lyman Rhoades is one of the Trustees of the bond holders of the Idaho Irrigation Company, Limited, a corporation, acting with the said Equitable Trust Company of New York, as Trustee under and by virtue of a certain Adjustment Mortgage, wherein said Idaho Irrigation Company,

Limited, is grantor and said Equitable Trust Company of New York and Lyman Rhoades are grantees, as Trustee. A copy of which said Adjustment Mortgage, so securing the bonds as aforesaid, is hereunto attached, marked Exhibit "F" and made a part hereof as fully and completely as if actually copied in this paragraph and complaint at length.

V.

That the defendant M. R. Kayes is the vice-president and general manager of the Idaho Irrigation Company, Limited, and together with the Equitable Trust Company and Lyman Rhoades as trustee, is also the trustee for the stockholders of said Idaho Irrigation Company, Limited, and for the holders of bonds issued under and by virtue of said Adjustment Mortgage, heretofore referred to, and are holders as such trustees of the following described lands within said segregation, together with the shares of the capital stock of the Big Wood River Reservoir & Canal Company, Limited, hereinafter set out, viz:
(Description of lands omitted in record on appeal.)

VI.

That heretofore, the said defendant, Idaho Irrigation Company, Limited, was duly organized and incorporated under and by virtue of the laws of the State of Idaho, for the purpose of constructing certain irrigation works, for the reclamation of certain desert lands, under and by virtue of the provisions of the Act of August 18th, 1894 of the Congress of the United States, known as the Carey Act, and of Sec-

tion 1613 to Section 1634 of the Revised Codes of the State of Idaho and acts amendatory thereto, the said acts being the acts of the Legislature of the State of Idaho in acceptance of the provisions of the Carey Act as aforesaid, which said irrigation project was located in the now counties of Camas, Blaine, Lincoln and Gooding. A copy of the articles of incorporation of said company are hereto attached, marked Exhibit "A" and made a part of this paragraph and complaint as if actually copied herein at length.

VII.

That thereafter the State of Idaho, acting under and by virtue of the said Carey Act and acts amendatory thereto, and of Sections 1613 to 1634 of the Revised Codes of the State of Idaho and acts amendatory thereto, entered into a contract and agreement to and with the government of the United States for the segregation of certain land to be reclaimed, irrigated and cultivated under and by virtue of the terms of said Carey Act, for the benefit of the said Idaho Irrigation Company, as aforesaid, a copy of which said contract between the United States of America and the State of Idaho is hereto attached marked Exhibit "B," and made a part of this paragraph and complaint as fully and completely as if actually copied herein at length. That thereafter and on the 21st day of August, 1907, the State of Idaho and the said defendant Idaho Irrigation Company, a corporation, made and en-

tered into a certain contract and agreement for the construction of certain irrigation works, to irrigate the said segregation so segregated by the government of the United States, under and by virtue of the contract aforesaid between the United States of America and the State of Idaho, a copy of which said contract between the said State of Idaho and the said defendant, Idaho Irrigation Company, Limited, is hereto attached marked Exhibit "C" and made a part hereof as fully and completely as if actually copied in this paragraph and complaint at length.

VIII.

That thereafter and on the 2nd day of January, 1909, the said State of Idaho and the defendant Idaho Irrigation Company, Limited, entered into a further and supplemental contract, amending and supplementing said original contract, of August 21st, 1907, for the irrigation of said segregation as aforesaid, a copy of which said supplemental contract, between the State of Idaho and the said Idaho Irrigation Company, Limited, is hereto attached, and marked Exhibit "D" and made a part of this paragraph and complaint as fully and completely as if actually copied herein at length.

IX.

That thereafter, and at various times and dates, the said Idaho Irrigation Company, Limited, entered into certain contracts with your respective plaintiffs and their predecessors in interest, for the sale of water rights, to be used for the irrigation and reclama-

tion of certain lands within said segregation, and of the lands now belonging to these plaintiffs, more particularly set out hereinafter. That said contracts were made and issued, upon a certain printed form, which said form had been approved by the State Board of Land Commissioners of the State of Idaho, and was known and referred to as form R48. That all the said contracts so issued to your plaintiffs and other settlers upon said project, were and are identical, with this difference: "The names of the various contract holders, and the descriptions of the land to which the water right was to become appurtenant." A copy of which said form of contract is hereto attached, marked Exhibit "E" and made a part of this paragraph and complaint as fully and completely as if actually copied herein at length.

X.

That by the terms of said contracts, heretofore attached hereto and marked as Exhibits "B" and "C," the said Idaho Irrigation Company, promised, contracted and agreed with the State of Idaho as follows, to-wit:

"And the said party of the second part agrees to furnish and deliver to the owners of shares in said reservoir and irrigation system, as specified in the other provisions of this contract, all of the appropriated waters to which said second party may be entitled, to the extent of one-eightieth ($1/80$) of one (1) cubic foot per second of time per acre, said water to be furnished for the reclamation of land included in

said Segregation Lists number Nine (9), Ten (10), Eleven (11), Twelve (12) and Twenty-two (22), together with any other lands not included within said segregation, but which are so situated as to be susceptible of irrigation and reclamation from the canal and distributing system designed for the irrigation of the lands included in the aforesaid list."

That the contract of the Idaho Irrigation Company, Limited, with each of your plaintiffs, as well as with all other settlers upon the aforementioned segregation, and lands adjacent thereto, susceptible of irrigation from said system, provided as follows:

"This is to certify that is the owner of shares of the capital stock of the Big Wood River Reservoir & Canal Company, Limited, transferable on the books of the company by endorsement hereon. Each share entitles the owner thereof to receive one-eightieth ($1/80$) of a cubic foot of water per second of time for irrigation of and domestic uses on the following described land:

..... Section..., Township...
South of Range... East B. M., in the County of Lincoln and State of Idaho;

and this certificate also entitles the owner to a proportionate interest in and to the dam, canal, reservoir, water rights and all other rights and franchises of this company based upon the number of shares finally sold, in accordance with the contract between the Idaho Irrigation Company, Limited, and the

State of Idaho, dated August 21st, 1907, as amended."

XI.

That under and by virtue of the contracts aforesaid, the said Idaho Irrigation Company, Limited, became and was bound to sell to all persons who should apply, shares of stock in the said Big Wood River Reservoir & Canal Company, Limited, evidencing water rights as aforesaid, to the extent of one-eightieth ($1/80$) of a cubic foot of water per second of time for the irrigation of each and every acre, so long as the appropriation and supply of the said irrigation company would permit. And that by the terms of said contract, when the said Idaho Irrigation Company, should have sold water rights sufficient to exhaust the appropriations, carrying and distributing capacity, the ownership of the said Idaho Irrigation Company, in and to said canals, reservoirs, dams, ditches and irrigation works ceases and that the said irrigation system, as well as the appropriation of water therefor, should become the property of the said Big Wood River Reservoir & Canal Company, Limited, and the ownership of said system, should become vested in the owners of the shares of stock in the said Big Wood River Reservoir & Canal Company, Limited, and that thereupon the interest of said Idaho Irrigation Company, (except that of a creditor, under the terms of the contract), and its right to

sell further water rights, and further shares of stock therein, should cease and terminate.

XII.

That thereafter and for the purpose of securing funds with which to build and construct said irrigation works and system in said contracts heretofore attached hereto and marked as Exhibits "B" and "C" hereto, described and set out, the said Idaho Irrigation Company, Limited, made and executed its certain Adjustment Mortgage, mortgaging, pledging, covering and conveying all of its dams, ditches, laterals, canals, headgates and other property, both real and personal, of all kinds, to secure an issue of bonds as in said Adjustment Mortgage provided and described, and that the bonds therein mentioned and set out, and thereby secured, were sold to various persons whose names and residences are to these plaintiffs, at this time, unknown.

XIII.

That thereafter, the said Idaho Irrigation Company, Limited, being in default in the payment of principal and interest upon said bonds so issued and secured as aforesaid, for the purpose of compromise and settlement, then and there caused its certificate of capital stock, together with the certificates of capital stock of the Big Wood Reservoir & Canal Company, Limited, which it then held, or afterwards should acquire, to be assigned and transferred to certain persons, who were known as the Bond Holders Committee of the Idaho Irrigation Company,

Limited, which persons' names are to these plaintiffs, at this time, unknown. That by means of said assignment and the ownership and control of the shares of stock of the Idaho Irrigation Company, Limited, as well as the shares of the capital stock of the Big Wood Reservoir & Canal Company, Limited, then remaining in the hands of said Idaho Irrigation Company, Limited, together with such shares of said stock as it should afterwards acquire, became vested in the same persons who had become and were the purchasers and holders of the bonds of the Idaho Irrigation Company, Limited, issued under and by virtue of said Adjustment Mortgage heretofore described and set out. That thereby the holders of the bonds of the Idaho Irrigation Company, Limited, and the holders of its capital stock, became and were in truth and in fact identical, and that the said holders of the said bonds, in fact became and ever since said date have been and now are the stockholders of the said Idaho Irrigation Company, Limited.

XIII.

That at the time of the purchase of the said bonds of the Idaho Irrigation Company, Limited, by the various bond holders, the said bond holders, and each and all of them, were well aware of the consideration of the said bonds, and were familiar and conversant with the terms of the Adjustment Mortgage, the contracts of the Idaho Irrigation Company, Limited, with the settlers, and with your plaintiffs' in particular, and the contracts of the Idaho Irrigation

Company, Limited, with the State of Idaho, and took said bonds with full knowledge of all the conditions and terms thereby imposed.

XIV.

That thereafter the said Idaho Irrigation Company, Limited, was taken over in its entirety, by means of the assignments aforesaid, by the persons holding the bonds of the said Idaho Irrigation Company, Limited, as aforesaid, and that the ownership of the stock and bonds of the Idaho Irrigation Company, is in fact vested in a certain committee known as the Bond Holders Committee of the Idaho Irrigation Company, Limited, and that the affairs, property rights and franchises of the said Idaho Irrigation Company, Limited, are now being run, managed and operated by said Bond Holders Committee, solely for the benefit of the holders of the stock and bonds of said company, which said persons are identical.

XV.

That the said Idaho Irrigation Company, Limited, was formed for the purpose of the actual irrigation and reclamation of the segregations mentioned in said contracts heretofore attached and marked "Exhibits." That the owners of said corporate stock of said Idaho Irrigation Company, Limited, and the owners and purchasers of said bonds issued under and by virtue of said Adjustment Mortgage, as aforesaid, and secured thereby, were well aware of the conditions and terms of the said contract with

the Idaho Irrigation Company, Limited, and the State of Idaho and with the said Idaho Irrigation Company, Limited, and your plaintiffs and other settlers, and were informed and aware of the terms, limitations and conditions imposed by said contract.

XVI.

That each of your plaintiffs is the holder of a contract issued by the Idaho Irrigation Company, Limited, in the form aforesaid, heretofore attached and set out as Exhibit "E," and that each and every contract holder of said Idaho Irrigation Company, Limited, holds a similar contract differing only in name and description of the land, that your several plaintiffs are the owners of land in said project covered by contracts as aforesaid, aggregating Four Thousand Eight Hundred Twenty (4820) acres of land, within said segregation, together with an equal number of shares of the capital stock of the Big Wood River Reservoir & Canal Company, Limited, evidencing their water rights therefor.

XVII.

That the said contract, heretofore attached and marked Exhibits "B" and "C" between the State of Idaho and the Idaho Irrigation Company, provided as follows:

"The second party stipulates and agrees that to the extent of the capacity of the irrigation works and to the extent of its water rights, it will as rapidly as lands are opened for entry and settlement, sell or contract to sell water rights or shares for land to be

filed upon by qualified entrymen or purchasers without preference or partiality, other than that based upon the priority of application, it being understood however, that the priority of application or priority of entry or settlement, shall not give any priority of right for the use of water flowing through the canal as against subsequent purchasers, but shall entitle the purchaser to a proportionate interest only therein, the water right having been taken for the benefit of the entire tract of land to be irrigated from the system."

XVIII.

That under and by virtue of the above provision and stipulation contract, the rights of each and every user of water upon the lands of the Idaho Irrigation Company, Limited, are equal, and that each and every stock holder in said Big Wood Reservoir & Canal Company has equal rights in and to the available water, and to the use of the distributing system, based upon the number of shares of stock of the Big Wood Reservoir & Canal Company, which he owns and holds.

XIX.

That the said contracts aforesaid of the Government of the United States and the State of Idaho, and of the State of Idaho and the Idaho Irrigation Company, Limited, and of the Idaho Irrigation Company, Limited, and these plaintiffs, and the Idaho Irrigation Company, Limited, and each and every actual settler upon the said segregations provided in

substance, that the said Idaho Irrigation Company, Limited, should construct a reservoir and canal system sufficient to irrigate and reclaim a certain tract of land described in said contract, containing approximately One Hundred and Fifty Thousand (150,000) acres, but that the said contract further provided that the said Idaho Irrigation Company should sell water rights of one-eightieth ($1/80$) of one cubic foot per second of time, per acre, for the irrigation and reclamation of said land, and that it should construct irrigation works of such capacity as to be able in fact to deliver and furnish one-eightieth ($1/80$) of one cubic foot of water per second of time, per acre of land, for each acre of land within said segregation. That the certificates of stock in the Big Wood Reservoir & Canal Company should entitle the purchaser thereof to receive one-eightieth ($1/80$) of a cubic foot of water per second of time per acre, and a proportionate interest in the irrigation works and system. And that said contracts limited the rights of the said Idaho Irrigation Company, Limited, to the sale of a number of the shares of capital stock of said Big Wood River Reservoir & Canal Company, to the capacity of the system to furnish and distribute water, in accordance with the contract, and to the actual appropriation of water available for irrigation purposes. That under and by virtue of the terms of the said contracts aforesaid, when the said Idaho Irrigation Company, Limited, had in truth and in fact sold

shares in said company, which should and did represent the actual amount of water available, and appropriated, and when said sale of shares should equal the carrying capacity of said irrigation system, then and in that instance, the said Idaho Irrigation Company should make no further sales of alleged water rights, by means of selling and issuing shares of stock in said Big Wood Reservoir & Canal Company.

XX.

That the lands of your plaintiffs and all other lands within said segregation are semi-arid in character and require the artificial application of water, or irrigation, in order to raise thereon ordinary agricultural crops, and that the said land requires the application thereto of at least five-eighths ($5/8$) of a cubic inch of water per acre, per second of time, or one-eightieth ($1/80$) of one second foot of water per second of time for each acre, during the irrigation season, for the successful irrigation, reclamation and cultivation thereof, and for the raising of ordinary agricultural crops thereon; and that with a less amount of water than said one-eightieth ($1/80$) of one cubic foot per second of time, per acre of land during the irrigation season, such lands are worthless and valueless for agricultural purpose, and for the purpose of raising ordinary agricultural crops. That the irrigation system, reservoirs and canals as constructed by the Idaho Irrigation Company, Limited, under the provision of the said contracts of the said Idaho Irrigation Company, Lim-

ited, and of the State of Idaho, and the water supply, by said Idaho Irrigation Company appropriated, and mentioned in said contract, are in fact not sufficient to irrigate the entire segregation mentioned, described and set out in said contract. That is to say that the said irrigation system, reservoirs and canals so constructed aforesaid are of such size and capacity as to enable the Idaho Irrigation Company to furnish one-eightieth of one second foot of water per second of time, per acre of land, during the irrigation season, for Seventy Thousand (70,000) acres of land and no more. That the total supply of water, appropriated and available, for distribution by and through the said system, enables the said Idaho Irrigation Company, to furnish and deliver, one-eightieth of one cubic foot of water per second of time per acre of land, to Seventy Thousand (70,000) acres of land and no more. That is to say—that the irrigation and cultivation of Seventy Thousand (70,000) acres of land, and the application thereto of one-eightieth of one cubic foot of water per second of time per acre, will exhaust the entire capacity of the said irrigation works and system of said Idaho Irrigation Company, Limited, during the irrigation season of each year. That is to say—that the sale of certificates of stock in the Big Wood Reservoir & Canal Company, Limited, in any amount in excess of Seventy Thousand (70,000) shares, represent, neither available carrying capacity, or available water supply. That the total available water supply

of said Idaho Irrigation Company, Limited, actually existing, actually appropriated and available for distribution to the contract holders on said project at the headgate of the contract holders is 220,688 acre feet, which said amount of water will, at the contract rate of $\frac{5}{8}$ of a miner's inch per acre during the statutory irrigation season, furnish and supply water for the irrigation of 41,248 acres and no more; that is to say, that the irrigation and cultivation of 41,248 acres and the application thereto of $\frac{1}{80}$ of one cubic foot of water per second of time per acre of land for the statutory irrigation season, beginning April 1st and ending on October 31st, will exhaust the entire appropriated and available water supply of said Idaho Irrigation Company, Limited.

XXI.

That the said defendant Idaho Irrigation Company has already sold and disposed of, to settlers upon said land, of said segregation, over Ninety Thousand Shares (90,000) of the capital stock of the Big Wood River Reservoir & Canal Company, to become appurtenant to lands in said segregation, and that it has already wrongfully oversold its capacity to transport and deliver water, and has already oversold its appropriation of water, by approximately Twenty-Four Thousand (24,000) shares, by means of which shares it has contracted and agreed to deliver to each and every share holder one-eightieth of one second foot of water per second of time per acre of land. That the sale of certificates

of stock in said Big Wood River Reservoir & Canal Company, in excess of its capacity to furnish and deliver water, was and is a fraud upon these plaintiffs in that, and is an attempt to take their property without due process of law, and operates to diminish and decrease the water rights to which these plaintiffs, and each and every settler, in good faith upon said project, is entitled to under his said contract, and which he requires for the successful irrigation, cultivation and reclamation of his said land.

XXII.

That the water rights, evidenced by shares of the capital stock of the Big Wood River Reservoir & Canal Company, Limited, so sold by the Idaho Irrigation Company, Limited, to various settlers upon its segregation, the said Idaho Irrigation Company, Limited, or its trustees, The Equitable Trust Company and Lyman Rhoades and M. R. Kays, have reacquired, by purchase at Sheriff's Sale and otherwise, Twenty-One Thousand and Five Hundred Fifty-five (21,555) shares of stock in said Big Wood River Reservoir & Canal Company. That the said shares of stock are now held in the name of The Equitable Trust Company and Lyman Rhoades and M. R. Kays as trustees, and that the said M. R. Kays, The Equitable Trust Company and Lyman Rhoades hold the same as trustee, for the stockholders of the Idaho Irrigation Company, Limited, and for the holders of the bonds of the Idaho Irrigation Company, Limited, and that the same are in fact,

the assets of the said Idaho Irrigation Company, Limited, held by the said Equitable Trust Company, Lyman Rhoades and M. R. Kays, for the benefit of the stock and bond holders of said company.

XXIII.

That the shares of stock of the Big Wood Reservoir & Canal Company, already sold to these plaintiffs, and other bona fide settlers, upon the segregation of the Idaho Irrigation Company, Limited, amount to Seventy-five Thousand Six Hundred and Forty-five and seven-hundredths (75,645.07) shares, and represent the entire carrying capacity of the said ditches and laterals, and exceed the entire storage capacity of said reservoir and the natural flow of the Big and Little Wood rivers, and in fact exceed the entire appropriation of water of the Idaho Irrigation Company available for the use in irrigation and reclamation of said projects. That the remaining shares of the capital stock of the said Big Wood Reservoir & Canal Company, held by the Idaho Irrigation Company, and by M. R. Kays as trustee aforesaid, and by The Equitable Trust Company and Lyman Rhoades as trustee, in truth and in fact represent neither carrying capacity or appropriated water.

XXIV.

That the said defendants, Idaho Irrigation Company and M. R. Kays as trustee as aforesaid, and The Equitable Trust Company of New York and Lyman Rhoades as trustee aforesaid, are now offering for sale, and endeavoring to sell, and unless re-

strained by an order of this Court, will sell, the remaining shares of stock, in the Big Wood Reservoir & Canal Company, Limited, now owned, or held by them, in their various capacities as aforesaid, and that if the said defendants be permitted to sell any of the shares aforesaid, that the purchasers of said shares will be entitled to share in the water supply, and the carrying capacity of these plaintiffs and other bona fide settlers upon said project, and that such sale would result in depriving these plaintiffs and all other settlers upon said tract, of a proportionate share of their water rights, and of a proportionate share of their interest in said canal system. That the same would decrease the water rights of these plaintiffs, and all others upon said segregation, who now actually own water rights, and are applying the same to a beneficial use, to such an extent as to render the water rights of these plaintiffs worthless, and of no value, and so reduce the available supply of water as to prevent these plaintiffs, and all others upon said segregation, from raising ordinary agricultural crops upon their said land, and that the said plaintiffs would be greatly and irreparably damaged thereby, and that their property and property rights would thereby be diminished and destroyed. That the said defendant Idaho Irrigation Company, Limited, is insolvent, and unable to respond to these plaintiffs in damages, and that they have no plain, speedy and adequate remedy at law; that the defendants, The Equitable Trust Company as trustee and

Lyman Rhoades as trustee and M. R. Kays as trustee as aforesaid, are not under the law insurers of the success of the project, and are not amenable to an action in damages herein. That therefore, unless an injunction be granted by this Court, permanently enjoining and restraining the said defendants and each of them, from selling, disposing of and issuing of the stock of the said Big Wood Reservoir & Canal Company, which they now claim to own and hold, and which now stands upon the books of the company, in the name of said Idaho Irrigation Company, Limited, The Equitable Trust Company of New York, and Lyman Rhoades as trustee and M. R. Kays as trustee, that these plaintiffs, as well as each and every other settler and owner of water rights on said project, will suffer great loss and damage and irreparable injury.

WHEREFORE plaintiffs pray that the said defendants, Idaho Irrigation Company, Limited, The Equitable Trust Company of New York, a corporation, Lyman Rhoades as trustee, and M. R. Kays as trustee, be permanently enjoined and restrained, first, from selling, disposing of or transferring upon the books of the company any of the shares of the capital stock of the Big Wood Reservoir & Canal Company, Limited, which they now hold as assets of the said Idaho Irrigation Company, Limited, and as trustees for the benefit of the bond holders of said corporation.

Second, that the said Idaho Irrigation Company, Limited, and all persons acting for it, its agents, officers and employees, be permanently enjoined and restrained from issuing any more or further contracts for the sale of water rights, or from selling, disposing of or transferring any of the shares of the Big Wood Reservoir & Canal Company, Limited, which it now owns, or controls. For costs of suit herein made and expended, and for such other and further relief as to the Court may seem just.

BISSELL & HELMAN,

*Attorneys for Plaintiffs. P. O. and Residence,
Shoshone, Idaho.*

(Duly verified.)

EXHIBIT "B"

ARTICLES OF AGREEMENT.

These articles of agreement, made and entered into this.....day of.....A. D. 19..., by and between....., Secretary of the Interior, for and on behalf of the United States of America, party of the first part, and....., Governor, for and on behalf of the State of Idaho, party of the second part, witnesseth:

That in consideration of the stipulations and agreements hereinafter made, and of the fact that said State has, under the provisions of Section 4 of the act of Congress approved August 18, 1894, of the

Act of Congress approved June 11, 1896, and of the Act of Congress approved March 3, 1901, the Act of Congress approved May 27, 1908, Joint Resolution approved May 25, 1908, and subject to the provisions of the Act of Congress approved June 22, 1910, through, its proper officer, thereunto duly authorized, presented its proper application for certain lands situated within said State and alleged to be desert in character and particularly described as follows, to-wit: List No. (here insert list of lands and total area), and has filed a map of said lands and exhibited a plan showing the mode by which it is proposed that said lands shall be irrigated and reclaimed and the source of the water to be used for that purpose, the said party of the first part contracts and agrees, and, by and with the consent and approval of, President thereof, hereby binds the United States of America to donate, grant, and patent to said State or to its assigns, free from cost for survey or price, any particular tract or tracts of said lands whenever an ample supply of water is actually furnished in a substantial ditch or canal, or by artesian wells or reservoirs, to reclaim the same, in accordance with the provisions of said acts of Congress, and with the regulations issued thereunder, and with the terms of this contract, at any time within ten years from the date of the approval of the said map of the lands.

It is further understood that said State shall not lease any of said lands or use or dispose of the same in any way whatever, except to secure their reclamation, cultivation, and settlement; and that in selling and disposing of them for that purpose the said State may sell or dispose of not more than 160 acres to any one person, and then only to bona fide settlers who are citizens of the United States or who have declared their intention to become such citizens; and it is distinctly understood and fully agreed that all persons acquiring title to said lands from said State prior to the issuance of patent, as hereinafter mentioned, will take the same subject to all the requirements of said acts of Congress and to the terms of this contract, and shall show full compliance therewith before they shall have any claim against the United States for a patent to said lands.

It is further understood and agreed that said State shall have full power, right, and authority to enact such laws, and from time to time to make and enter into such contracts and agreements, and to create and assume such obligations in relation to and concerning said lands as may be necessary to induce and cause such irrigation and reclamation thereof as is required by this contract and the said acts of Congress; but no such law, contract, or obligation shall in any way bind or obligate the United States to do or perform any act not clearly directed and set forth in this contract and said acts of Congress, and then

only after the requirements of said acts and contract have been fully complied with.

Neither the approval of said application, map, and plan, nor the segregation of said land by the Secretary of the Interior, nor anything in this contract, or in the said acts of Congress, shall be so construed as to give said State any interest whatever in any lands upon which, at the date of the filing of the map and plan hereinbefore referred to, there may be an actual settlement by a bona fide settler, qualified under the public land laws to acquire title thereto, or which are known to be valuable for their deposits of coal or other minerals.

It is further understood and agreed that as soon as an ample supply of water is actually furnished in a substantial ditch or canal, or by artesian wells or reservoirs, to reclaim a particular tract or tracts of said lands the said State or its assigns may make proof thereof under and according to such rules and regulations as may be prescribed therefor by the Secretary of the Interior, and as soon as such proof shall have been examined and found to be satisfactory patents shall issue to said State, or to its assigns, for the tracts included in said proof.

The said State shall, out of the money arising from its disposal of said lands, first reimburse itself for any and all costs and expenditures incurred by it in irrigating and reclaiming said lands, or in assisting its assigns in so doing; and any surplus then remaining after the payment of the cost of

such reclamation shall be held as a trust fund, to be applied to the reclamation of other desert lands within said State.

This contract is executed in duplicate, one copy of which shall be placed of record and remain on file with the Commissioner of the General Land Office, and the other shall be placed of record and remain on file with the proper officer of said State, and it shall be the duty of said State to cause a copy thereof, together with a copy of all rules and regulations issued thereunder or under said acts of Congress, to be spread upon the deed records of each of the counties in said State in which any of said lands shall be situated.

In testimony whereof the said parties have hereunto set their hands the day and year first herein written.

.....
Secretary of the Interior, State of Idaho.

By

Governor.

APPROVAL.

To all to whom these presents shall come, Greeting:

Know we, that I,,
President of the United States of America, do hereby approve and ratify the attached contract and agreement, made and entered into on the
day of, 19..., by and between,
Secretary of the Interior, for and on behalf of the

United States, and
 Governor, for and on behalf of the State of Idaho,
 under Section 4 of the Act of Congress approved
 August 18, 1894, the act approved June 11, 1896,
 the act approved March 3, 1901, the act of May
 27, 1908 (35 Stat., 317-341) J. R. of May 25, 1908
 (35 Stat., 577) and subject to the provisions of
 Act of Congress approved June 22, 1910 (36 Stat.,
 583.)

Articles of agreement of the above form between
 the State of Idaho and the United States were exe-
 cuted as of the following dates and for the segre-
 gation of the number of acres noted below for rec-
 lamation from the irrigation system described in
 Exhibit C, to-wit:

April 2, 1907.....	40,821.21 Acres
May 14, 1907.....	1,440.85 Acres
May 16, 1907.....	12,436.41 Acres
July 8, 1907.....	55,018.60 Acres
December 9, 1908.....	50,297.07 Acres
February 3, 1910.....	7,743.17 Acres

EXHIBIT "C".

AGREEMENT

Between the State of Idaho and the Idaho Irriga-
 tion Company, Ltd.

THIS AGREEMENT, Made and entered into, in
 duplicate, this 21st day of August, 1907, by and
 between the State of Idaho, the party of the first

part, through the State Board of Land Commissioners of said State, said Board consisting of Frank R. Gooding, Governor, Robert Lansdon, Secretary of State, John J. Guheen, Attorney General, and S. Belle Chamberlain, Superintendent of Public Instruction of said State, and the Idaho Irrigation Company, Limited, a corporation organized and existing under the laws of the State of Idaho and duly authorized to do business therein, the party of the second part, witnesseth:

That, whereas the said party of the second part did heretofore, to-wit, on July 27, 1906, and October 1, 1906, respectively, file with the said State Board of Land Commissioners of the State of Idaho proposals for construction of certain irrigation works situated in the counties of Lincoln and Blaine in the State of Idaho, under the provisions of Section 4 of the Act of Congress approved August 18, 1894, commonly known as the Carey Act, and the Acts amendatory thereof, and the laws enacted by the State of Idaho in pursuance of the power granted by the said Acts of Congress, the said lands being designated as Lists Numbers 9, 10, 11 and 12, and aggregating 110,000 acres, more or less, which said proposals were thereafter amended, pursuant to request filed with said Board on January 5, 1907;

And, whereas, at the request of the State of Idaho, the lands hereinbefore referred to included in said Lists Numbers 9, 10, 11 and 12, lying under said irrigation works, have been by contracts be-

tween the United States and the State of Idaho, set apart by the United States, in compliance with the provisions of said Act of Congress; said lists being on file in the United States Land Office at Hailey, Idaho, and the said lands included therein being particularly and fully set out in the said contracts between the United States and the State of Idaho, to which contracts reference is hereby made for a full and complete description of said lands;

And, whereas, the respective parties hereto are ready and desirous of entering into a formal contract for the construction of said irrigation works in pursuance of said proposals;

And, whereas, said State Board of Land Commissioners on the 15th day of August, 1907, resolved to enter into a contract with said party of the second part for the construction of said irrigation works;

Now, therefore, in consideration of the covenants and agreements herein contained, the party of the second part agrees with the party of the first part to construct a dam, reservoir and irrigation system hereinafter referred to and described and to provide for the sale of shares or water rights in said reservoir and irrigation system from time to time, as and in the manner hereinafter provided, to persons filing upon portions of the lands hereinbefore described and referred to; also to supply water from said irrigation system to the owners of other lands not described herein, but which are susceptible to

irrigation from this system; such shares or water rights to be sold on the terms hereinafter specified, and finally to provide the manner of transferring the ownership, management and control of said irrigation system to the purchasers of said shares or water rights, as hereinafter provided.

2. GENERAL OUTLINE AND SPECIFICATIONS FOR CONSTRUCTION.

The plan of the proposed reservoir system (as shown by the plats filed) is to construct a dam at least one hundred fifteen feet high across Big Wood River at a point in the Northeast quarter of Section 19, T. 2 S., R. 18 E., and to flow the water back up on each side of the river to a point in the Northeast quarter of Section 19, T. 1 S., R. 18 E., a distance of about seven miles; also to back the water up Malad of Camas Creek or River, which empties into Big Wood River at a point in the Northeast quarter, Section 25, T. 1 S., R. 17 E., to a point in Sec. 18, T. 1 S., R. 17 E., B. M., a distance of about four miles, or a total of about eleven miles on both rivers. The proposed reservoir has an area of about 2525 acres on surveyed land, and an area of about 325.4 acres on unsurveyed land, a total of 2854.4 acres, with a capacity of 150,000 acre-feet.

The project, when completed, will irrigate about 110,000 acres in Blaine and Lincoln Counties, Idaho.

The estimated cost of the proposed works is about \$2,000,000 and upwards, which includes the estimate of cost of distributing laterals and sublaterals

to each 160-acre tract for the whole 110,000 acres, as hereinafter provided.

STRUCTURES.

(Specifications omitted in record on appeal.)

For a more complete description of the dam, reservoir and irrigation system hereinbefore referred to, reference is made to the field notes of survey and contour maps on file in the office of the State Engineer at Boise, Idaho.

This canal system is to be surveyed and laterals to be determined by topographical survey, which is to be made and platted so that a contour of the ground can be definitely shown. The size of the laterals to be determined from the lay of the ground, the amount of the land governing the size of the laterals for each district by projecting lines on this plat and laying them out on the ground in conformity with the plat. This plat and system of laterals to be submitted to the State Engineer and State Land Board for approval from time to time as the surveys are made.

Coulees and draws may be used as water ways when convenient, but all coulees or draws utilized as laterals from which water is to be taken by settlers for irrigation shall be so constructed and improved as to practically conform to artificially constructed laterals of like capacity, so that water may be available for use from the same in practically the same

manner and at approximately the same expense; and it is further agreed that the specifications as to the construction and improvement of said coulees and draws shall be filed from time to time as the work progresses with the State Engineer and the State Land Board for their approval, it being understood that this paragraph is to be liberally construed, in order that no unnecessary improvement of coulees need be made.

It will be the duty of the said second party to file with the State Engineer of the State of Idaho, notes showing the size, courses and distances from angle to angle of the canals and main lateral as soon as the same shall have been finally determined. Changes may be made in these specifications from time to time by agreement between the State Engineer, the State Land Board and the said second party, such changes, however, not to impair the efficiency or durability of the works for the purposes for which they are intended.

The said party of the second part shall on demand of the first party furnish any further detailed specifications that may be required.

The main canals of this system shall have a carrying capacity when completed sufficient to deliver simultaneously one second foot of water for every eighty acres of land described in this contract, together with all other land susceptible of irrigation from said canals, as nearly as the same can be es-

timated and agreed upon between the State Engineer and the engineers of the said second party.

The plans, specifications and details for the construction of the dam, reservoirs, canals, headgates, weirs, etc., so far as the same are not covered by the above specifications, shall be submitted to the State Engineer of the State of Idaho for his approval prior to the construction of any of said works, with the right of appeal of the said second party from his decision to the State Board of Land Commissioners, and the work when completed shall be in accordance with the specifications as finally determined upon to the satisfaction of the State Engineer and the State Land Board.

The party of the second part reserves the right, by and with consent of the first party, to construct any additional reservoir, canals and dams which, in their judgment, may hereafter become necessary; Provided, such reservoirs, dams and canals shall meet with the approval of the first party and that they shall be constructed in a manner that shall meet with the approval of the State Engineer and with the State Land Board.

3. RIGHT OF WAY.

(Omitted in record on appeal.)

4. APPROPRIATION OF WATER.

It is understood that the party of the second part is the owner of a right to divert from the Big Wood River and Malad River 3000 cubic feet per second of time of water, under Permit Number 1817, is-

sued by the State Engineer of the State of Idaho, on the 16th day of November, 1905.

And the said party of the second part agrees to furnish and deliver to the owners of shares in said reservoir and irrigation system, as specified in the other provisions of this contract, all of said appropriated waters to which the said second party may be entitled, to the extent of one-eightieth ($1/80$) of one (1) cubic foot per second of time per acre, said water to be furnished for the reclamation of the lands included in said segregations, Lists Numbers 9, 10, 11 and 12, together with any other lands not included in said segregations, but which are so situated as to be susceptible of irrigation and reclamation from the canal and distributing system designed for the irrigation of the lands included in the aforesaid lists.

And the said second party hereby covenants and agrees that it has not done, suffered or permitted on its part any act or thing by reason whereof the appropriation so made of the said waters of Big Wood River and Malad River, for the purpose of irrigation and reclamation of lands through the system of works to be constructed hereunder, has been or in the future may be in any way impeached, clouded or impaired.

5. ENTRY OF LANDS.

When the actual construction of said canals and irrigation works shall have been inaugurated and so far completed as to insure that the said water

will be furnished the hereinafter described lands, the said Board of Land Commissioners may in their discretion cause to be opened for settlement, by advertisement as provided by law, such portions of said tract as they deem advisable, in every case the opening to be under such regulations as to the manner of said opening as shall be prescribed by the State Board of Land Commissioners.

6. APPLICATION FOR LANDS.

The said party of the first part, through its State Board of Land Commissioners, agrees that it will not approve any application for or filing on the lands herein referred to until the person or persons so applying shall furnish to the said Board a true copy of the contract entered into with the party of the second part for the purchase of sufficient shares or water rights in said reservoir and irrigation system for the irrigation of said lands, said shares or water rights to be evidenced by the stock of the Big Wood River Reservoir and Canal Company, Limited, as hereinafter provided.

The second party stipulates and agrees that to the extent of the capacity of the irrigation works and to the extent of its water rights, it will, as rapidly as lands are open for entry and settlement, sell, or contract to sell water rights or shares for land to be filed upon to qualified entrymen or purchasers without preference or partiality, other than that based upon priority of application; it being understood, however, that priority of application or prior-

ity of entry or settlement shall not give any priority of right to the use of water flowing through the canal as against subsequent purchasers, but shall entitle the purchaser to a proportionate interest only therein, the water rights having been taken for the benefit of the entire tract of land to be irrigated from the system. The priority of the application upon the opening days shall be determined by a system of drawing under the direction of the State Board of Land Commissioners.

7. SALE OF LANDS BY THE STATE.

That the said party of the first part, acting through its State Board of Land Commissioners, agrees to sell the lands herein described to such persons as are or may be by law entitled to file upon the same, for the sum of fifty cents (\$0.50) per acre, half of which sum shall be paid at the time of application for the entry of such land made to said Board, and the remaining one-half at the time of making final proof thereon.

8. PRICE OF WATER RIGHTS.

Said party of the second part further agrees and undertakes that it will sell or cause to be sold to the person or persons filing upon any of the lands herein described, or to the owner of other lands not described herein, which are or may be susceptible of irrigation from its canal system, by good and sufficient contract of sale with right of possession and enjoyment by the purchaser pending its fulfillment, a water right or share in said canal for each

and every acre filed upon or purchased from the State or acquired from the United States. Each of said shares or water rights shall represent a carrying capacity in said canal sufficient to deliver water at the rate of one-eightieth ($1/80$) of one (1) second foot per acre, per second of time, and each share or water right sold or contracted, as herein provided, shall also represent a proportionate interest in said reservoir and irrigation works, together with all rights and franchises therein, based upon the number of shares finally sold in said reservoir and irrigation works. Said irrigation system, however, to be built in accordance with the plans heretofore filed with the Board, which irrigation system, according to said plans, has been determined by the State Engineer to have the carrying capacity hereinbefore mentioned.

Such water rights or shares shall be sold to the person or persons aforesaid for lands included in said segregations and for lands adjacent thereto, at a price not exceeding thirty-five dollars (\$35) per share, except as is hereinafter provided, the same to be paid for as follows:

(Omitted in record on appeal.)

To the person or persons purchasing any portion or portions of Sections numbered Sixteen (16) or Thirty-six (36), or any other lands belonging to the State of Idaho and within the exterior limits of said segregations and which are susceptible of irrigation and reclamation from said irrigation sys-

tem, water rights or shares shall be sold at a price not to exceed twenty-five dollars (\$25) per share; Provided, said water rights or shares are purchased within one year after the purchase of the lands from the State, and not exceeding thirty-five dollars (\$35) per share at any time thereafter. Said payments upon said State lands to be made as follows:

(Omitted in record on appeal.)

In case purchasers or entrymen on lands other than those segregated under the Carey Act decline to purchase water rights for two years or more after the water is ready for delivery, then one dollar and eighty cents (\$1.80) may be added to the price of the water right for each year's delay, or fraction thereof.

It is further agreed that no payment other than the initial payment and no interest shall be required under any contract either for Carey Act lands or State or private lands until the water for the said land is available from said reservoirs and canals for distribution at a point within one-half mile of each legal subdivision of 160 acres of the said land, and such water must be available at the beginning of the irrigating season in order to make such payments become due, and all payments and interest provided in said contract shall be advanced in time according to the delay in the delivery of said water as aforesaid.

It is understood and agreed that the said party of the second part shall charge interest at the rate of

six per cent per annum upon all deferred payments whenever said shares are sold upon a time contract. This agreement shall not, however, be construed to prevent the sale of shares or water rights to purchasers upon terms more favorable than those hereinbefore provided, or to prevent the payment of installments of the purchase price in advance of the maturity of the same at the option of the purchaser. But in no case shall water rights or shares be dedicated to any of the lands aforementioned or sold beyond the carrying capacity of the said canal system or in excess of the appropriation of water as hereinbefore mentioned.

9. TRANSFER OF POSSESSION AND MANAGEMENT OF CANAL.

It being necessary to provide a convenient method of transferring the ownership and control of said canal from the said party of the second part herein to the purchasers of said water rights in said canal and for determining their rights among themselves and between said purchasers and the party of the second part herein, for the purpose of operating and maintaining said canal during the period of construction and afterwards and for the purpose of levying and collecting tolls, charges and assessments for carrying on and maintaining of said canal and the management and operation thereof, it is hereby provided that as soon as said lands are ordered thrown open for settlement, a corporation to be known as the Big Wood River Reservoir and Canal

Company, Limited, shall be formed at the expense of the party of the second part, the Articles of Incorporation of said company to be in form approved by the Attorney-General of the State of Idaho; that the authorized capital stock of said corporation shall be One Hundred Twenty-five Thousand (125,000) shares, which amount is intended to represent one share for each acre of land which may hereafter be irrigated from said canal. The entire authorized amount of the capital stock of said corporation shall be delivered to the party of the second part herein in consideration of the covenants and agreements herein contained in order to enable it to deliver to purchasers of water rights the shares of stock representing the same. Said shares of stock, however, shall have no voting power and shall not have force and effect until they have been sold or contracted to be sold to purchasers of land under this irrigation system.

At the time of the purchase of any water right there shall be issued to the purchaser thereof one share of the capital stock of said corporation for each acre of land entered or filed upon.

The said party of the second part herein shall, in case said water rights or shares of stock are not fully paid for, require the endorsement and delivery to it of said stock, and shall at the same time, require of said purchaser an agreement that until thirty-five per cent. (35%) of the purchase price of said stock has been paid the said party of the sec-

ond part herein shall vote said stock in such manner as it may deem proper at all meetings of the stockholders of said corporation.

But the said second party hereto nor the Big Wood River Reservoir & Canal Company, Limited, cannot in any manner control any of the said system so as to limit the liability of the second party under the terms of this contract.

The said Big Wood River Reservoir & Canal Company, Limited, shall have the management, ownership and control as above set out, of the said irrigation system as fast as the same is completed and turned over to it for operation by the said party of the second part, as hereinafter provided. Whenever it is certified by the Chief Engineer of the Company and the State Engineer that certain portions of the said irrigation system are completed for the purposes of operation, the same may, with the consent of the State Land Board, be turned over to the said Big Wood River Reservoir and Canal Company, Limited, for operation. Such transfer and operation, however, shall not in any manner lessen the responsibility of the said second party with reference to the terms of this contract, nor shall such consent upon the part of the State Land Board be construed as final acceptance of such portion of such canal, it being always understood that the acceptance of said irrigation system must be in its entirety and that the bond given for the faithful performance of the said contract must

be made and be liable for the substantial completion of the entire irrigation system.

10. WATER RIGHT DEDICATED.

The certificates of shares of stock of the Big Wood River Reservoir & Canal Company, Limited, shall be made to indicate and define the interest thereby represented in the said system, to-wit: A water right of one-eightieth ($1/80$) of a cubic foot per second for each acre and a proportionate interest in said reservoir and irrigation system and shares, based upon the number of shares ultimately sold therein. While the party of the second part shall retain control of said Big Wood River Reservoir & Canal Company, Limited, water shall be measured and be available for use within one-half mile of the place of intended use and in such quantities and at such times as the condition of the crops and weather may determine, but according to such rules and regulations, based upon a system of distribution of water to the irrigators in turn and by rotation, as will best protect and serve the interests of all the users of water from said irrigation system. It is agreed that said system of distribution by rotation shall be devised by the said party of the second part and used by the said Big Wood River Reservoir & Canal Company, Limited, (in case the necessity arises) during the period while it retains the management of said Big Wood River Reservoir & Canal Company, Limited, said system of rotation, however, to be approved by the State

Engineer. The sale of the water rights to the purchaser shall be a dedication of the water to the lands to which the same is to be applied, such water right to be a part of and to relate to the water right belonging to said irrigation system.

11. MANAGEMENT OF WATER AND CHARGES FOR DELIVERY.

The party of the second part agrees to construct said reservoir and irrigation system so that water conducted through its canals may be available at points not to exceed one-half mile, measured in a direct line, from each quarter section of land described in said segregation, and to be irrigated and reclaimed by water conducted through said canals. That it will construct and place in position all headgates, flumes, weirs and other devices for the control and measurement of water in the main canals and reservoirs and in the main laterals, it being intended that the settler shall, under the direction of the Chief Engineer of the second party, build and furnish one gate or measuring device for his use, but that all other gates, weirs and measuring devices in the main canals, main or subordinate laterals shall be furnished and constructed by the second party. Plans for measuring devices, headgates and weirs are to be approved by the State Engineer. No charge shall be made to the purchaser for the delivery of water for said lands, or lands adjacent thereto, prior to the first day of April, 1909. For each succeeding year thereafter, while the second

party retains the control of the said Big Wood River Reservoir & Canal Company, Limited, said Company may charge and assess the purchasers of water rights in said irrigation system not to exceed the sum of thirty-five cents (\$0.35) per acre for each acre of land for which a water right has been purchased, the same to become due at the beginning of each irrigation season, if the water is ready for delivery at the beginning of such season, and such water must be available for use at a point within one-half mile of each quarter section of such land. If the sum so raised shall be insufficient for the purpose of maintaining, operating and keeping in repair the said system and paying the expenses for the management thereof, then the said party of the second part will furnish all the additional funds necessary to supply such deficiency.

A main lateral, within the meaning of this contract, is a lateral taken from the main line of the canal. A subordinate lateral, within the meaning of this contract, is a lateral built for the purpose of conducting water from a main lateral to a point within half a mile of the place of intended use. A coulee or draw used as a main lateral or a subordinate lateral shall also be included within these terms.

12. COMPLETION OF SYSTEM.

Said party of the second part agrees to continue to prosecute the work on said reservoir and irrigation system diligently and continuously to com-

pletion; and that there shall be no cessation of work thereon after the first year for more than sixty days without the consent of the Board; and to supply water to the lands included in the said List Number 9 on or before May 8th, 1908, and to the Lands included in Lists 10, 11, and 12 within two years from the date of this contract, and to complete the entire irrigation works, within five years from this date, at which last mentioned date the obligation to furnish the full one-eightieth ($1/80$) of a cubic foot per second of time of water per acre shall be in force and effect.

It is understood that changes and alterations in the plans and specifications heretofore prepared and filed may be made at any time with the consent of the State Board of Land Commissioners.

13. FORFEITURE.

It is agreed that the rights of the second party herein may be forfeited in accordance with the following provision of the laws of the State of Idaho, Act approved March 2, 1899, Session Laws 1899, page 287:

"Sec. 13. No contract shall be made by the Board which requires a greater length of time than five years for the construction of the works, and all contracts shall state that the work shall begin within six months from the date of contract, that at least one-tenth of the construction work shall be completed within two years from the date of said contract, that construction shall be prosecuted diligently and continuously to completion, and that a cessation of

work under the contract with the State for a period of six months after the second year, without the sanction of the Board, will forfeit to the State all rights under said contract."

14. ESTIMATED COST.

The estimated cost of the proposed irrigation works is two million dollars (\$2,000,000) and upwards, and the price at which water rights are fixed herein and for which liens are authorized against the separate legal subdivisions of land herein described are deemed necessary in order to pay the costs and expnses of reclamation and interest thereon. The existing laws under which this contract is made are understood and agreed to be a part of this contract.

15. DESCRIPTION OF LANDS.

The lands hereinbefore referred to are lands donated by the Act of Congress to the State of Idaho under and pursuant to the Act approved August 18, 1894, and the amendments relating thereto, commonly called the Carey Act, the irrigation and reclamation of which lands this contract is designed to effect. The lands are fully set forth in the said Lists Numbers 9, 10, 11 and 12, which are hereby referred to and made a part hereof.

16. HIGHWAYS.

Entries of land are understood to be made subject to a right of way, without compensation to the entrymen, for roads upon all exterior section lines and also upon all half section lines, which may b

designated by the Board of County Commissioners, as may be provided by law.

17. WATER SUPPLY FOR CITIES AND TOWNS.

It is understood and agreed that so much water as may be necessary for the use of cities and towns and the inhabitants thereof, which cities and towns must necessarily take their water supply from said system of canals, shall be furnished from said canal system to said cities and towns and the inhabitants thereof, upon such terms of sale or rental as may be agreed upon by the party of the second part and said cities and towns or the owners of the lands upon which the same are established, or the residents therein. Said cities and towns must contribute to the maintenance and support of said irrigation system in proportion to the amount of water used by them, and shares of stock of the Big Wood River Reservoir & Canal Company, Limited, shall be issued for the amounts of water represented by said use to the Trustees of any village or the Mayor of any city, in trust for the use and benefit of the towns and cities and the inhabitants thereof.

18. DELIVERY OF WATER TO USERS.

It is agreed that the said Big Wood River Reservoir & Canal Company, Limited, shall not deliver water to or permit the use thereof from said irrigation system by persons who have not purchased water rights or who are not holders of stock in said Big Wood River Reservoir & Canal Company, Lim-

ited, or who are not otherwise entitled thereto, under this contract.

19. MORTGAGE.

The right, title and interest of the second party in the works and irrigation system may be mortgaged, the form of such mortgage to be approved by the Attorney General of Idaho.

20. AMENDMENTS.

This contract may be altered and amended by first party with the consent of second party for the purpose of carrying out the object of the contract, and for the purpose of meeting any conditions now unforeseen.

21. BOND.

The said second party agrees to furnish a good and sufficient bond for the faithful performance of the within contract.

This contract is intended to apply to all lands hereinbefore referred to and described, including List Number 9, which lands so included in List Number 9 form the basis of a contract heretofore, to-wit, on May 8, 1907, entered into between the parties hereto; and this contract, pursuant to the agreement then made, includes all the lands intended to be irrigated and reclaimed under the irrigation system herein referred to.

IN WITNESS WHEREOF, the party of the first part, the State of Idaho, has caused this agreement to be signed in duplicate by its Governor and President of the State Board of Land Commis-

sioners of the State of Idaho, and the said party of the second part has hereunto caused its corporate name to be attached by its President, and attested by its Secretary, and its corporate seal to be affixed, as well as a duplicate thereof, the day and year first above written.

FOR THE STATE OF IDAHO.

By

FRANK R. GOODING,
*Governor, and President of State Board
of Land Commissioners.*

IDAHO IRRIGATION COMPANY, LIMITED,
By WILLIAM P. O'CONNOR,
President.

Attest:

M. I. CHURCH,
Register.
(Corporate Seal)

Attest:

THEODORE PETERS,
Secretary.

EXHIBIT "D".

SUPPLEMENTAL AGREEMENT

Between the State of Idaho and the Idaho Irrigation Company, Ltd.

THIS SUPPLEMENTAL AGREEMENT, Made and entered into, in duplicate, this 2nd day of January, 1909, by and between the State of Idaho, the party of the first part, through the State Board of Land Commissioners of said State, said Board consisting of Frank R. Gooding, Governor, Robert Lansdon, Secretary of State, John J. Guheen, Attor-

ney General, and S. Belle Chamberlain, Superintendent of Public Instruction of said State, and the Idaho Irrigation Company, Limited, a corporation organized and existing under the laws of the State of Idaho and duly authorized to do business therein, the party of the second part, witnesseth:

That, whereas the said party of the second part did heretofore, to-wit, on July 27, 1906, October 1, 1906, January 5, 1907, and January 29, 1907, respectively, file with the said State Board of Land Commissioners of the State of Idaho proposals for construction of certain irrigation works situated in the Counties of Lincoln and Blaine in the State of Idaho, under the provisions of Section 4 of the Act of Congress approved August 18, 1894, commonly known as the Carey Act, and the Acts amendatory thereof, and the laws enacted by the State of Idaho in pursuance of the power granted by the said Act of Congress, the said lands being designated as Lists Numbers 9, 10, 11 and 12, and aggregating 110,000 acres, more or less; which said first two proposals were thereafter amended, pursuant to request filed with said Board on January 5, 1907;

And, Whereas, at the request of the State of Idaho, the lands hereinbefore referred to includd in said Lists Numbers 9, 10, 11 and 12, lying under said irrigation works, have been by contracts between the United States and the State of Idaho, set apart by the United States, in compliance with the provisions of said Act of Congress; said lists be-

ing on file in the United States Land Office at Hailey, Idaho, and the said lands included therein being particularly and fully set out in the said contracts between the United States and the State of Idaho, to which contracts reference is hereby made for a full and complete description of said lands;

And, Whereas, the said party of the second part did heretofore, to-wit, on May 8, 1908, file with the said State Board of Land Commissioners of the State of Idaho a supplemental request for the selection of additional lands by the State and proposal to construct the necessary works for the irrigation of the same in the County of Lincoln and State of Idaho, under the provisions of the Act of Congress hereinbefore referred to, known as the Carey Act, and the Acts amendatory thereof, and the laws enacted by the State of Idaho in pursuance of the power granted by the said Act of Congress, the said lands being designated as List Number 22, and aggregating 50,377.07 acres, more or less;

And, Whereas, at the request of the State of Idaho, the lands hereinbefore referred to included in said supplemental request and proposal, List Number 22, lying under said irrigation works, have been by contract between the United States and the State of Idaho, set apart by the United States, in compliance with the provisions of said Act of Congress, said list being on file in the United States Land Office at Hailey, Idaho, and the said lands included

therein being particularly and fully set out in the said contract between the United States and the State of Idaho, to which contract reference is hereby made for a full and complete description of said lands;

And, Whereas, The State of Idaho and the said Idaho Irrigation Company, Limited, parties to this contract, did heretofore- to-wit, on the 21st day of August, 1907, enter into a contract for the construction of irrigation works for the irrigation and reclamation of the lands included in said Lists Numbers 9, 10, 11 and 12, which said works are now under construction;

And, Whereas, The respective parties hereto are ready and desirous of entering into a supplemental contract for the construction of said irrigation works, which shall include the construction of the works necessary to properly irrigate and reclaim the lands included in said List Number 22;

And, Whereas, the said State Board of Land Commissioners on the 31st day of December, 1908, resolved to enter into such supplemental contract with the party of the second part for the construction of said irrigation works, including the construction of the necessary canals and laterals to properly irrigate and reclaim the lands included in List Number 22;

Now, Therefore, In consideration of the covenants and agreements herein contained, the party of the second part agrees with the party of the first part

to construct the dam, reservoir and irrigation system hereinafter referred to and described, which shall include the construction of the necessary additional canals and laterals to properly irrigate and reclaim the lands included in said List Number 22, and to provide for the sale of shares or water rights in said reservoir and irrigation system from time to time, as and in the manner hereinafter provided, to persons filing upon portions of the lands hereinbefore described and referred to as List Number 22; also to supply water from said irrigation system to the owners of other lands not described herein, but which are susceptible of irrigation from this system; such shares or water rights to be sold on the terms hereinafter specified, and finally to provide the manner of transferring the ownership, management and control of said irrigation system to the purchasers of said shares or water rights as hereinafter provided.

2. GENERAL OUTLINE AND SPECIFICATIONS FOR CONSTRUCTION.

The plan of the proposed irrigation system (as shown by the plats filed) is to divert water from an impounding dam on Big Wood River at a point in the Northeast Quarter of Sec. 19, Tp. 2 S., R. 18 E., into said river; thence into what is commonly called Cotton Wood Slough; thence into Little Wood River.

The impounding or storage dam is more specifically described in the agreement between the State

of Idaho and the Idaho Irrigation Company, Limited, dated August 21, 1907. In order to irrigate the additional lands segregated in List Number 22, the original plans, described in the agreement between the State of Idaho and the Idaho Irrigation Company above mentioned, have been enlarged and extended and the capacity of the impounding dam has been increased. Under the plans by which it is now being constructed, it will be at least 128 feet in height, instead of 110 feet as originally planned. The reservoir thus formed will have an area of 2,763 acres on surveyed land and an area of 635 acres on unsurveyed land, a total area of 3,398 acres; and will have a capacity of 180,000 acre-feet instead of 150,000 acre-feet as originally proposed.

This additional storage, together with direct diversion, from Big and Little Wood River will furnish an adequate supply for the successful reclamation of the two tracts of land segregated in List Number 22, namely: One tract lying adjacent to the town of Gooding, the other east of Shoshone and adjacent to Dietrich Siding, in Lincoln County, Idaho.

The original cost of the proposed works was \$2,000,000 and upward, which included the estimate of cost of distributing laterals and sub-laterals to each one hundred and sixty acre tract for the 110,000 acres, in Blaine and Lincoln Counties, previously segregated. The additional cost for the enlargement of the impounding dam, with increased

storage capacity, together with the cost of building the main canal and distributing system for the two tracts in List Number 22 is estimated at \$650,000.

Plans for the construction of the impounding dam on Big Wood River are now on file in the office of the State Engineer.

(Specifications omitted in record on appeal.)

The party of the second part reserves the right, by and with the consent of the first party, to construct any additional reservoir, canals and dams which, in their judgment, may hereafter become necessary; Provided, such reservoirs, dams and canals shall meet with the approval of the first party and that they shall be constructed in a manner that shall meet with the approval of the State Engineer and with the State Land Board.

3. RIGHT OF WAY.

(Omitted in record on appeal.)

APPROPRIATION OF WATER.

It is understood that the party of the second part is the owner of a right to divert from the Big Wood River and Malad River 3000 cubic feet per second of time of water, under Permit Number 1817, issued by the State Engineer of the State of Idaho, on the 16th day of November, 1905. Also of a certain other right to divert water from the said Big Wood River and Malad River to the extent of three thousand (3000) cubic feet per second of time, under Permit Number 3818, issued by the State Engineer

of the State of Idaho on the 18th day of July, 1908, and recorded in Book 11, at page 3818, of the records of the State Engineer's office, State of Idaho.

And the said party of the second part agrees to furnish and deliver to the owners of shares in said reservoir and irrigation system, as specified in other provisions of this contract, all of said appropriated waters to which the said second party may be entitled, to the extent of one-eightieth ($1/80$) of one (1) cubic foot per second of time per acre, said water to be furnished for the reclamation of the lands included in said segregations, Lists Numbers 9, 10, 11, 12 and 22, together with any other lands not included in said segregations, but which are so situated as to be susceptible of irrigation and reclamation from the canal and distributing system designed for the irrigation of the lands included in the aforesaid lists.

And the said second party hereby covenants and agrees that it has not done, suffered or permitted on its part any act or thing by reason whereof the appropriation so made, of the said waters of Big Wood River and Malad River, for the purpose of irrigation and reclamation of lands through the system of works to be constructed hereunder, has been or in the future may be in any way impeached, clouded or impaired.

5. ENTRY OF LANDS.

When the actual construction of the said canals and irrigation works shall have been so far com-

pleted as to insure that the said water will be furnished the lands described in said List Number 22, the State Board of Land Commissioners may, in their discretion, cause to be opened for settlement, by advertisement as provided by Law, all or such portions of said lands included in said List Number 22 as they may deem advisable, in every case the opening to be under such regulations as to the manner of said opening as shall be prescribed by the State Board of Land Commissioners.

6. APPLICATION FOR LANDS.

The said party of the first part, through its State Board of Land Commissioners, agrees that it will not approve any application for or filing on the lands herein referred to until the person or persons so applying shall furnish to the said Board a true copy of the contract entered into with the party of the second part for the purchase of sufficient shares or water rights in said reservoir and irrigation system for the irrigation of said lands, said shares or water rights to be evidenced by the stock of the Big Wood River Reservoir and Canal Company, Limited, as hereinafter provided.

The second party stipulates and agrees that to the extent of the capacity of the irrigation works and to the extent of its water rights, it will, as rapidly as lands are open for entry and settlement, sell, or contract to sell, water rights or shares for land to be filed upon to qualified entrymen or purchasers without preference or partiality, other than that

based upon priority of application; it being understood, however, that priority of application or priority of entry or settlement shall not give any priority of right to the use of water flowing through the canal as against subsequent purchasers, but shall entitle the purchaser to a proportionate interest only therein, the water rights having been taken for the benefit of the entire tract of land to be irrigated from the system. The priority of the application upon the opening days shall be determined by a system of drawing under the direction of the State Board of Land Commissioners.

7. SALE OF LANDS BY THE STATE.

That the said party of the first part, acting through its State Board of Land Commissioners, agrees to sell the lands herein described to such persons as are or may be by law entitled to file upon the same, for the sum of fifty cents (\$0.50) per acre, half of which sum shall be paid at the time of application for the entry of such land made to said Board, and the remaining one-half at the time of making final proof thereon.

8. PRICE OF WATER RIGHTS.

Said party of the second part further agrees and undertakes that it will sell or cause to be sold to the person or persons filing upon any of the lands described in said List Number twenty-two (22), or to the owner of other lands adjacent thereto but not described therein, which are or may be susceptible of irrigation from its canal system, by good

and sufficient contract of sale with right of possession and enjoyment by the purchaser pending its fulfillment, a water right or share in said canal for each and every acre filed upon or purchased from the State or acquired from the United States. Each of said shares or water rights shall represent a carrying capacity in said canal sufficient to deliver water at the rate of one-eightieth ($1/80$) of one (1) second foot per acre, per second of time, and each share or water right sold or contracted, as herein provided, shall also represent a proportionate interest in said reservoir and irrigation works, together with all rights and franchises therein, based upon the number of shares finally sold in said reservoir and irrigation works. Said irrigation system, however, to be built in accordance with the plans heretofore filed with the Board, which irrigation system, according to said plans, has been determined by the State Engineer to have the carrying capacity hereinbefore mentioned.

Such water rights or shares shall be sold to the person or persons aforesaid for lands included in said segregations and for lands adjacent thereto, at a price not exceeding fifty dollars (\$50) per share, except as is hereinafter provided, the same to be paid for as follows:

(Omitted in record on appeal.)

To the persons or person purchasing any portion or portions of Sections numbered Sixteen (16) or Thirty-six (36), or any other lands belonging to

the State of Idaho and within the exterior limits of said segregations and which are susceptible of irrigation and reclamation from said irrigation system, water rights or shares shall be sold at a price not to exceed Forty dollars (\$40) per share; Provided, said water rights or shares are purchased within one year after the purchase of the lands from the State, and not exceeding Fifty dollars (\$50) per share at any time thereafter. Said payments upon said State lands to be made as follows:

(Omitted in record on appeal.)

In case purchasers or entrymen on lands other than those segregated under the Carey Act decline to purchase water rights for two years or more after the water is ready for delivery, then one dollar and eighty cents (\$1.80) may be added to the price of the water right for each year's delay, or fraction thereof.

It is further agreed that no payment other than the initial payment and no interest shall be required under any contract either for Carey Act lands or State or private lands until the water for the said land is available from said reservoirs and canals for distribution at a point within one-half mile of each legal subdivision of 160 acres of the land, and such water must be available at the beginning of the irrigating season in order to make such payments become due, and all payments and interest provided in said contract shall be advanced in time according to the delay in the delivery of said water as aforesaid.

It is understood and agreed that the said party of the second part shall charge interest at the rate of six per cent per annum upon all deferred payments wherever said shares are sold upon a time contract. This agreement shall not, however, be construed to prevent the sale of shares of water rights to purchasers upon terms more favorable than those hereinbefore provided, or to prevent the payment of installments of the purchase price in advance of the maturity of the same at the option of the purchaser. But in no case shall water rights or shares be dedicated to any of the lands aforementioned or sold beyond the carrying capacity of the said canal system or in excess of the appropriation of water as hereinbefore mentioned.

9. TRANSFER OF POSSESSION AND MANAGEMENT OF CANAL.

It having become necessary to provide a convenient method of transferring the ownership and control of said canal from the said party of the second part herein to the purchasers of said water rights in said canal and for determining their rights among themselves and between said purchasers and the party of the second part herein; for the purpose of operating and maintaining said canal during the period of construction and afterwards, and for the purpose of levying and collecting tolls, charges and assessments for the carrying on and maintaining of said canal and the management and operation thereof, a corporation known as the Big Wood River

Reservoir and Canal Company, Limited, has been formed, the Articles of Incorporation of said Company being in a form approved by the Attorney General of the State of Idaho; the authorized capital stock of said corporation being One Hundred Fifty Thousand (150,000) shares, which amount represents one share for each acre of land which may hereafter be irrigated from said canal. The entire authorized amount of the capital stock of said corporation has been made subject to the call of the party of the second part herein, in order to enable it to deliver to purchasers of water rights the shares of stock representing the same. Said shares of stock, however, shall not be voted and shall not have force and effect until they have been sold or contracted to be sold to purchasers of land under this irrigation system.

At the time of the purchase of any water rights there shall be issued to the purchaser thereof one share of the capital stock of said corporation for each acre of land entered or filed upon.

The said party of the second part herein shall, in case said water rights or shares of stock are not fully paid for, require the endorsement and delivery to it of said stock, and shall at the same time, require of said purchaser an agreement that until thirty-five per cent. (35%) of the purchase price of said stock has been paid the said party of the second part herein shall vote said stock in such manner as it may

deem proper at all meetings of the stockholders of said corporation.

But the said second party hereto nor the Big Wood River Reservoir & Canal Company, limited cannot in any manner control any of the said system so as to limit the liability of the second party under the terms of this contract.

The said Big Wood River Reservoir & Canal Company, Limited, shall have the management, ownership and control as above set out, of the said irrigation system as fast as the same is completed and turned over to it for operation by the said party of the second part, as hereinafter provided. Whenever it is certified by the Chief Engineer of the Company and the State Engineer that certain portions of the said irrigation system are completed for the purposes of operation, the same may, with the consent of the State Land Board be turned over to the said Big Wood River Reservoir and Canal Company, Limited, for operation. Such transfer and operation, however, shall not in any manner lessen the responsibility of the said second party with reference to the terms of this contract, nor shall such consent upon the part of the State Land Board be construed as a final acceptance of such portion of such canal, it being always understood that the acceptance of said irrigation system must be in its entirety and that the bond given for the faithful performance of the said contract must be made and

be liable for the substantial completion of the entire irrigation system.

10. WATER RIGHT DEDICATED.

The certificates of shares of stock of the Big Wood River Reservoir & Canal Company, Limited, shall be made to indicate and define the interest thereby represented in the said system, to-wit: A water right of one-eightieth ($1/80$) of a cubic foot per second for each acre and a proportionate interest in said reservoir and irrigation system, based upon the number of shares ultimately sold therein. While the party of the second part shall retain control of said Big Wood River Reservoir & Canal Company, Limited, water shall be measured and be available for use within one-half mile of the place of intended use and in such quantities and at such times as the condition of the crops and weather may determine, but according to such rules and regulations, based upon a system of distribution of water to the irrigators in turn and by rotation, as will best protect and serve the interests of all the users of water from said irrigation system. It is agreed that said system of distribution by rotation shall be devised by the said party of the second part and used by the said Big Wood River & Canal Company, Limited, (in case the necessity arises during the period while it retains the management of said Big Wood River Reservoir & Canal Company, Limited, said system of rotation, however, to be approved by the State Engineer. The sale of the

water rights to the purchaser shall be a dedication of the water to the lands to which the same is to be applied, such water right to be a part of and to relate to the water right belonging to said irrigation system.

11. MANAGEMENT OF WATER AND CHARGES FOR DELIVERY.

The party of the second part agrees to construct said reservoir and irrigation system so that water conducted through its canals may be available at points not to exceed one-half mile, measured in a direct line, from each quarter section of land described in said segregation, and to be irrigated and reclaimed by water conducted through said canals. That it will construct and place in position all headgates, flumes, weirs and other devices for the control and measurement of water in the main canals and reservoirs and in the main laterals, it being intended that the settler shall, under the direction of the Chief Engineer of the second party, build and furnish one gate or measuring device for his use, but that all other gates, weirs and measuring devices in the main canals, main or subordinate laterals shall be furnished and constructed by the second party. Plans for measuring devices, headgates and weirs are to be approved by the State Engineer. No charge shall be made to the purchaser for the delivery of water for said lands, included in said List Number 22 and herein described, or land adjacent thereto, prior to the first day of April, 1910.

For each succeeding year thereafter, while the second party retains the control of the said Big Wood River Reservoir & Canal Company, Limited, said Company may charge and assess the purchasers of water rights in said irrigation system not to exceed the sum of thirty-five cents (\$0.35) per acre for each acre of land for which a water right has been purchased, the same to become due at the beginning of each irrigation season, if the water is ready for delivery at the beginning of such season, and such water must be available for use at a point within one-half mile of each quarter section of such land. If the sum so raised shall be insufficient for the purpose of maintaining, operating and keeping in repair the said system and paying the expenses for the management thereof, then the said party of the second part will furnish all the additional funds necessary to supply such deficiency.

A main lateral within the meaning of this contract, is a lateral taken from the main line of the canal. A subordinate lateral, within the meaning of this contract, is a lateral built for the purpose of conducting water from a main lateral to a point within half a mile of the place of intended use. A coulee or draw used as a main lateral or a subordinate lateral shall also be included within these terms.

12. COMPLETION OF SYSTEM.

Said party of the second part agrees to continue to prosecute the work on said reservoir and irriga-

tion system diligently and continuously to completion; and that there shall be no cessation of work thereon for more than sixty days without the consent of the Board; and to supply water to the lands included in the said List Number 22 on or before April 1, 1910, and to complete the entire irrigation works within five years from the date of said original agreement, to-wit: on or before August 21, 1912, at which last mentioned date the obligations to furnish the full one-eightieth ($1/80$) of a cubic foot per second of time of water per acre shall be in force and effect.

It is understood that changes and alterations in the plans and specifications heretofore prepared and filed may be made at any time with the consent of the State Board of Land Commissioners.

13. FORFEITURE.

It is agreed that the rights of the second party herein may be forfeited in accordance with the following provision of the laws of the State of Idaho, Act approved March 2, 1899, Session Laws 1899, page 287:

"Sec. 13. No contract shall be made by the Board which requires a greater time than five years for construction of the works, and all contracts shall state that the work shall begin within six months from the date of contract, that at least one-tenth of the construction work shall be completed within two years from the date of said contract, that construction shall be prosecuted diligently and continuously to completion, and that a cessation of work under the contract with the State for a period

of six months after the second year, without the sanction of the Board, will forfeit to the State all rights under said contract."

14. ESTIMATED COST.

The estimated cost of the proposed irrigation works is three million dollars and upwards, and the price at which water rights are fixed herein and for which liens are authorized against the separate legal subdivisions of land herein described are deemed necessary in order to pay the costs and expenses of reclamation and interest thereon. The existing laws under which this contract is made are understood and agreed to be a part of this contract.

15. DESCRIPTION OF LANDS.

The lands hereinbefore referred to are lands donated by the Act of Congress to the State of Idaho under and pursuant to the Act approved August 18, 1894, and the amendments relating thereto, commonly called the Carey Act, the irrigation and reclamation of which lands this contract is designed to effect. The lands are fully set forth in the said List Numbers 9, 10, 11, 12 and 22, which are hereby referred to and made a part hereof.

16. HIGHWAYS.

Entries of land are understood to be made subject to a right of way, without compensation to the entrymen, for roads upon all exterior section lines and also upon all half section lines, which may be designated by the Board of County Commissioners, as may be provided by law.

17. WATER SUPPLY FOR CITIES AND TOWNS.

It is understood and agreed that so much water as may be necessary for the use of cities and towns and the inhabitants thereof, which cities and towns must necessarily take their water supply from said system of canals, shall be furnished from said canal system to said cities and towns and the inhabitants thereof, upon such terms of sale or rental as may be agreed upon by the party of the second part and said cities and towns or the owners of the lands upon which the same are established, or the residents therein. Said cities and towns must contribute to the maintenance and support of said irrigation system in proportion to the amount of water used by them and shares of stock of the Big Wood River Reservoir & Canal Company, Limited, shall be issued for the amounts of water represented by said use to the Trustees of any village or the Mayor of any city, in trust for the use and benefit of the towns and cities and the inhabitants thereof.

18. DELIVERY OF WATER TO USERS.

It is agreed that the Big Wood River Reservoir & Canal Company, Limited, shall not deliver water to or permit the use thereof from said irrigation system by persons who have not purchased water rights or who are not holders of stock in said Big Wood River Reservoir & Canal Company, Limited, or who are not otherwise entitled thereto, under this contract.

19. MORTGAGE.

The right, title and interest of the second party in the works and irrigation system may be mortgaged, the form of such mortgage to be approved by the Attorney General of Idaho.

20. AMENDMENTS.

This contract may be altered and amended by the first party with the consent of the second party for the purpose of carrying out the object of the contract, and for the purpose of meeting any conditions now unforeseen.

21. BOND.

The said second party agrees to furnish a good and sufficient bond for the faithful performance of the within contract, in its application to lands included in said List Number 22, and the additional canals and laterals designed and necessary for the irrigation of the same.

This contract is not intended to abrogate or annul the contract heretofore, to-wit, August 21, 1907, entered into between the parties hereto, but is intended to supplement the same and to relate specifically to the lands included in said List Number 22, filed with the Register of the State Board of Land Commissioners May 8, 1908, to which List reference is hereby made as a part of this contract.

IN WITNESS WHEREOF, the said party of the first part, the State of Idaho, has caused this agreement to be signed in duplicate by its Governor and President of the State Board of Land Commis-

sioners of the State of Idaho, and the said party of the second part has hereunto caused its corporate name to be attached by its Vice President, and attested by its Assistant Secretary, and its corporate seal to be affixed, as well as a duplicate thereof, the day and year first above written.

FOR THE STATE OF IDAHO,

By

(Signed) FRANK R. GOODING,
*Governor, and President of State
Board of Land Commissioners.*

IDAHO IRRIGATION COMPANY,
LIMITED,

By E. M. BLAKE,
Vice President.

(Seal)

ATTEST:

• M. I. CHURCH,
Register.

(Seal)

ATTEST:

C. D. LEHMKUHL,
Assistant Secretary.

EXHIBIT "E"

Contract No. M.

IDAHO IRRIGATION COMPANY, LIMITED

Richfield, Lincoln County, Idaho

AGREEMENT

THIS AGREEMENT, Made in duplicate this

day of..... between
the *Idaho Irrigation Company, Limited*, (for convenience hereinafter called "the company") a corporation organized and existing under the laws of the State of Idaho, party of the first part, and.....
..... (for convenience hereinafter called "the purchaser") of.....
..... State of.....,
party of the second part, WITNESSETH:

That the company has heretofore entered into a contract with the State of Idaho, acting by its State Board of Land Commissioners, whereby the company bound itself to construct a system of canals, reservoirs and irrigation works for the reclamation and irrigation of certain lands therein described and referred to, which contract is of record in the office of the Register of the State Board of Land Commissioners at Boise City, Idaho;

That the company has heretofore entered upon the work of construction of said reservoirs and irrigating system for the purpose of storing and diverting from the Big Wood River and the Malad River the waters thereof under the appropriation heretofore made for such purpose, said appropriation being evidenced by Permits Nos. 1817 and 3818, issued by the State Engineer of the State of Idaho on November 16, 1905, and July 18, 1908, respectively;

That the State Board of Land Commissioners pursuant to law and its rules and regulations, has

notified the company that it may proceed to sell or contract rights to the use of water flowing and to flow through the canals, and rights to and in said system of irrigation works, pursuant to law and the terms of said contract with the State;

That the purchaser has made application to the company to be permitted to purchase upon the terms hereinafter set forth, the rights and privileges by said contract guaranteed, to the extent hereinafter named, which said application has been accepted by the company subject to the approval of the State Board of Land Commissioners, whose approval, previous to the delivery thereof, has been by its Register endorsed hereon;

That in consideration of the sum of Dollars cash in hand paid this day by the purchaser to the company and in consideration of the covenants and agreements hereinafter contained, the purchaser hereby purchases Certificate No. for shares of the capital stock of the Big Wood River Reservoir and Canal Company, Limited, in form as follows, to-wit:

Incorporated under the laws of the State of
Idaho.

Number. Shares

BIG WOOD RIVER RESERVOIR AND
CANAL COMPANY, LIMITED.

Capital Stock, \$150,000.

THIS IS TO CERTIFY that.....
 is the owner of.....shares of the capital stock
 of the Big Wood River Reservoir and Canal Com-
 pany, Limited, transferable on the books of the
 Company by endorsement hereon. Each share en-
 titles the owner thereof to receive one-eightieth of
 a cubic foot of water per second of time for the
 irrigation of and domestic uses on the following
 described land:

.....
 Section....., Township....., South of
 Range....., East, B. M., in the County of Lin-
 coln and State of Idaho; and this Certificate also
 entitles the owner to a proportionate interest in
 the dam, canal, reservoir, water rights and all other
 rights and franchises of this Company, based upon
 the number of shares finally sold, in accordance
 with the contract between the Idaho Irrigation Com-
 pany, Limited, and the State of Idaho, dated Aug-
 ust 21st, 1907, as amended.

IN WITNESS WHEREOF, the Big Wood River Res-
 ervoir and Canal Company, Limited, has caused
 this Certificate to be sealed with its Corporate Seal
 and signed by its duly authorized officers this
day of....., 19....

BIG WOOD RIVER RESERVOIR AND
 CANAL COMPANY, LIMITED,

By

President.....

Attest:.....

Secretary.

The water which the purchaser shall have the right to conduct and receive through the said canal system shall be used upon and the water shall become dedicated and be appurtenant to the following described land and no other, to-wit:

.....

 in Section.....of Township.....South of
 Range.....East, B. M., containing.....
 acres, in.....County, Idaho.

And the parties hereto expressly agree as follows, to-wit:

1. This agreement is made in accordance with the provisions of said contract between the State of Idaho and the company, which contract as amended, together with the laws of the State of Idaho, under which this agreement is made, shall be regarded as defining the rights of the respective parties, and regulates the provisions of the shares of stock of the Big Wood River Reservoir and Canal Company, Limited.

2. The company agrees that so long as it retains control of the Big Wood River Reservoir and Canal Company, Limited, to-wit, so long as it shall continue to vote a majority of the stock of said company, as provided by the State contract, that it will cause said company to keep and maintain the said

irrigation system in good order and condition and to cause any necessary repairs thereto to be made as soon as practicable and expedient.

Said Big Wood River Reservoir and Canal Company, Limited, is to have power to levy and collect all necessary tolls, charges, and assessments upon and from all users of water in proportion to their respective holdings of stock, whether water is used or not, and the purchaser hereby agrees that a maintenance charge of thirty-five (35) cents per acre shall be made for the season of....., due and payable at the office of the Big Wood River Reservoir and Canal Company, Limited, on.....

....., and the company agrees that thereafter the annual charge for maintenance shall not, while the company is in control of the said Big Wood River Reservoir and Canal Company, Limited, exceed the sum of thirty-five (35) cents for each and every acre, to be charged against the entire acreage irrespective of the irrigation thereof. The purchaser agrees to pay said charge in advance at the office of the Big Wood River Reservoir and Canal Company, Limited, on the 1st day of April of each year, without notice, if water is available for use for said year.

3. The purchase price of the shares of stock hereby purchased is the sum of..... Dollars, and the balance thereof remaining due after the

cash payment hereinbefore acknowledged, to-wit, the sum ofDollars, is due and payable as follows, to-wit:

(12 deferred payments—schedule omitted in record on appeal.)

It is further mutually understood and agreed that the price herein agreed to be paid for said water right, to-wit, the sum of sixty (\$60.00) dollars per share, one share per acre, represents the actual cost and necessary expense of reclamation of the land herein described and reasonable interest thereon from the date of reclamation to this date.

Interest from....., at six per cent. per annum may be charged if water is available from said reservoir and canal for use during the irrigation season of....., and if not available for said season, interest shall commence when such water is available. But it is further understood and agreed that no payment other than the initial payment, and no interest shall be required to be paid under this contract until the water is available for distribution from said reservoirs and canals at a point within one-half mile of each legal subdivision of one hundred sixty acres, and such water must be available at the beginning of the irrigation season in order to make such payments become due, and all payments and interest provided in this contract shall be advanced in time according to the delay in the delivery of the said water as aforesaid.

4. The purchaser hereby covenants and agrees that upon default in the payment of any of the payments above specified, or of the interest thereon, or any annual charge, toll or assessment, for the operation and maintenance of the irrigation system hereinbefore provided for, the company may declare the entire amount of the principal purchase price for said water rights due, and may proceed either in law or equity to collect the same, and to enforce any lien which it may have upon the water rights hereby contracted, or upon the land to which said water rights are dedicated, or may at its option proceed to enforce any remedy given by the laws of the State of Idaho to the company against the purchaser.

And the purchaser hereby further covenants that he will and by these presents does hereby assign, transfer and set over by way of mortgage or pledge to the company to secure the payments of the amounts due and to become due on the purchase price of the shares of stock hereby purchased and all interest, tolls and charges herein provided for, any and all rights which he now has or which may hereafter accrue to him under his contract with the State of Idaho, for the purchase of the lands to which the water rights hereby purchased are dedicated, and further, that immediately upon transfer to him of the legal title to said lands or any part thereof, he will, upon demand, execute in proper form, a mortgage or deed of trust with power of

sale in such form as may be approved by the State Board of Land Commissioners, to secure the payments herein provided for, which said mortgage the purchaser hereby covenants and agrees shall be a first lien upon the lands so mortgaged, superior to any and every incumbrance in favor of any person or persons whomsoever.

5. The purchaser agrees that to further secure said payments the shares of stock purchased in the Big Wood River Reservoir and Canal Company, Limited, shall be and they are hereby assigned and transferred to the company, with power to pledge the same, and said company and its agents and assigns are hereby authorized and empowered to vote said stock in such manner as it or they may deem proper at all meetings of the stockholders of said company until thirty-five (35) per cent. of the purchase price of said stock has been paid.

6. It is understood, covenanted and agreed that the omission in the foregoing schedule of payments of all payments of principal for the first five (5) years from the date hereof is conditioned upon the cultivation and improvement by the purchaser of the lands herein described in accordance with the following schedule:

On or before September 1 of the year succeeding the year in which said contract for purchase of water right shares shall have been executed, the entryman shall have in cultivation 10% of the cultivable area.

On or before September 1 of the second year,
25%.

On or before September 1 of the third year,
40%.

On or before September 1 of the fourth year,
60%.

Lands to be placed in cultivation and crops raised thereon during each of the years specified. Upon failure of the purchaser to comply with the conditions relative to cultivation and improvement, the time of maturity of each of said deferred payments of principal shall be advanced so that the same shall mature on a date five years earlier than, or before, that specified in the schedule of payments hereinbefore provided for.

7. It is agreed that no water shall be delivered to the purchaser from said irrigation system while any installment of principal or interest is due and unpaid from the purchaser to the Company or while any toll or assessment is due and unpaid from the purchaser to the Big Wood River Reservoir and Canal Company, Limited.

8. This contract may be assigned by the company and thereupon the payment of principal and interest if so provided shall be due and payable to the assignee but the payment of tolls, assessments and charges for the delivery of water shall, unless otherwise provided, be paid to the Big Wood River Reservoir and Canal Company, Limited, and payments thereof may be enforced by it.

9. This contract is made pursuant to and subject to the contracts, as amended, between the company and the State of Idaho, and the existing laws of said State, and is to be construed in conjunction with said contract and said laws.

10. All notices given to second party by the State Board of Land Commissioners or by the first party hereto, may be sent to second party by mail addressed to his address as hereinbefore given.

IN WITNESS WHEREOF, The parties have hereunto subscribed their names, and the company has caused its seal to be affixed the day and year above written, in duplicate.

IDAHO IRRIGATION COMPANY, LIMITED.

By
Vice President.

Attest:
Assistant Secretary.

.....
Purchaser.

By
Attorney in Fact.

STATE OF)
) ss.

County of)

On this.....day of.....,
 in the year 19..., before me.....
, a Notary Public
 in and for said State and County, personally ap-
 peared

known to me to be the person whose name is subscribed to the above instrument as the attorney in fact of
and acknowledged to me that he executed the same, subscribed the name of.....
as principal and his own name as attorney in fact.

Attest my hand and official seal the day and year in this Certificate first above written.

.....
Notary Public.

The foregoing contract is hereby approved, and has been registered this.....day of....., 19....

STATE BOARD OF LAND
COMMISSIONERS,,

By.....

Register.

(Title of Court and Cause.)

NOTICE OF AMENDMENT OF COMPLAINT.

TO THE DEFENDANTS, IDAHO IRRIGATION COMPANY, LIMITED, M. R. KAYS, as Trustee, THE EQUITABLE TRUST COMPANY OF NEW YORK, and LYMAN RHOADES, as Trustee.

YOU ARE HEREBY NOTIFIED, That the complaint of the plaintiffs herein is before answer or demurrer has been filed, amended in the following particulars, to-wit:

First. That the name of C. B. Hess be withdrawn from said complaint as plaintiff, and the words "aggregating four thousand eight hundred and twenty (4,820) acres of land," appearing in lines 9 and 10 of paragraph Sixteen (16), be and hereby is corrected to read, "four thousand five hundred and ninety-six (4,596) acres of land."

Second. That a new paragraph is hereby added to said complaint, as paragraph 11½, which said paragraph is as follows, viz:

That the plaintiff, Novinger & Darrah Sheep Company, Limited, a corporation, is a corporation organized and existing under and by virtue of the laws of the State of Idaho, having its principal place of business in the village of Shoshone, Lincoln County, Idaho.

W. G. BISSELL,
Attorneys for Plaintiffs.

Filed Jan. 8, 1918.

J. W. LUNDIN, *Clerk.*

(Title of Court and Cause.)

ORDER AMENDING COMPLAINT.

It is hereby ordered that the plaintiffs be and hereby are allowed to amend their complaint to conform to the proof in the following respect, viz, that the last fifteen lines of paragraph 20 of said complaint be and hereby are amended to read as follows:

"That the total available water supply of said Idaho Irrigation Company, Limited, actually exist-

ing, actually appropriated and available for distribution to the contract holders on said project at the headgate of the contract holders is 122,817 acre feet, which said amount of water will, at the contract rate of $\frac{5}{8}$ of a miner's inch per acre during the statutory irrigation season, furnish and supply water for the irrigation of 40,939 acres and no more; that is to say, that the irrigation and cultivation of 40,939 acres and the application thereto of $\frac{1}{80}$ of one cubic foot of water per second of time per acre of land for the statutory irrigation season, beginning April 1st and ending on October 31st, will exhaust the entire appropriated and available water supply of said Idaho Irrigation Company, Limited."

Dated November 30th, 1920.

(Signed) FRANK S. DIETRICH,

District Judge.

(Filed December 24th, 1920.)

(Title of Court and Cause.)

ANSWER.

Now come the Idaho Irrigation Company, Ltd., a corporation, The Equitable Trust Company of New York, a corporation, and Lyman Rhoades, as Trustee for the bondholders of the Idaho Irrigation Company, Ltd., and M. R. Kays, as Trustee, the defendants above named, and each of them, and for their answer to the bill of complaint herein, aver:

I.

Admit that the plaintiffs and each of them are

owners of lands embraced within the segregation of the Idaho Irrigation Company, Ltd.; that they and each of them hold shares of stock in the Big Wood River Reservoir and Canal Company, Ltd., as alleged in Paragraph One of the bill.

Admit that the rights of the plaintiffs under and by virtue of the contract attached to the bill and marked "Exhibit E" are identical and vary only as to the name of the owner and the number of acres of land involved.

Deny that the plaintiffs herein, together with all other settlers upon the project of the Idaho Irrigation Company, Ltd., or otherwise, or at all, are interested in the outcome of this suit, as alleged in Paragraph One of the bill.

II.

Admit that the Idaho Irrigation Company, Ltd., now is and at all times mentioned in the bill of complaint was a corporation organized and existing under and by virtue of the laws of the State of Idaho.

Admit that said Idaho Irrigation Company, Ltd., is organized, incorporated and operated as an irrigation construction company, and that said company was formed for the purpose of engaging in the business of irrigating and reclaiming lands under the provisions of the Act of Congress approved on the 18th day of August, 1894, commonly known as the Carey Act, and of Sections 1613 to 1634 of the Compiled Laws of the State of Idaho, and the acts amendatory thereto;

Deny that the defendant, Idaho Irrigation Company, Ltd., owns, controls and is now operating certain irrigation works within the State of Idaho commonly known as the Idaho Irrigation Company Project, as alleged in Paragraph Two of the bill of complaint herein, but aver that the control, ownership and operation of said irrigation works by the defendant, Idaho Irrigation Company, is to be determined under and by virtue of the terms of plaintiffs' Exhibits "C" and "D" and the laws under which said contracts were made, and not otherwise.

III.

Admit that the Equitable Trust Company is a corporation organized and existing under and by virtue of the laws of the State of New York with its principal place of business at the city of New York, State of New York;

Admit that it is doing business as a trust company at the city of New York, in the State of New York, and elsewhere throughout the United States;

IV.

Admit that Lyman Rhoades and the Equitable Trust Company of New York are trustees under and by virtue of the terms of a certain adjustment mortgage, a copy of which is attached to the bill of complaint, marked "Exhibit F," and not otherwise;

V.

Admit that the defendant, M. R. Kays, is the vice-president and general manager of the Idaho Irrigation Company, Ltd., but deny that the said M. R.

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Kays is the trustee for the stockholders of said Idaho Irrigation Company, Ltd., and for the holders of bonds issued under and by virtue of said adjustment mortgage, as alleged in Paragraph Five of the bill of complaint;

Deny that Lyman Rhoades, the Equitable Trust Company, and M. R. Kays, as trustees, are the holders, as such trustees, of the lands and shares of stock of the Big Wood River Reservoir and Canal Company, Ltd., as set out in Paragraph Five of the bill of complaint, but aver that M. R. Kays, as trustee, holds legal title to the following described lands, together with the shares of stock of the Big Wood River Reservoir and Canal Company, hereinafter described: (Description of land omitted in record on appeal. No of acres, 7,311.75; No. of shares, 6,822.75).

These answering defendants further aver that all of the above described lands and shares of stock have been re-sold to numerous and divers persons under contract of purchase and are now being cultivated and irrigated by the various contract holders therefor.

That said Lyman Rhoades, as trustee under the said adjustment mortgage, marked "Exhibit F," holds the title in trust to the following described lands together with certificates of stock in the Big Wood River Reservoir and Canal Company, hereinafter described: (Description of land omitted in

record on appeal. No. of acres, 3,680; No. of shares, 3,884.16).

That the said Lyman Rhoades holds the legal title to said lands and the certificates of stock described, as trustee, under and by virtue of the terms of said Exhibit "F," and not otherwise.

VI.

Admit that the said defendant, Idaho Irrigation Company, Ltd., was duly organized and incorporated under and by virtue of the laws of the State of Idaho for the purpose of constructing certain irrigation works for the reclamation of certain desert lands, under and by virtue of the provisions of the act of August 18th, 1894, of the Congress of the United States, known as the Carey Act, and of Sections 1613 to 1634 of the Compiled Laws of the State of Idaho, and acts amendatory thereto;

VII.

Admit that the State of Idaho, acting under and by virtue of the said Carey Act and acts amendatory thereto, and of Sections 1613 to 1634 of the Compiled Laws of the State of Idaho, and acts amendatory thereto, entered into a contract and agreement with the Government of the United States for the reclamation and cultivation of certain land under and by virtue of the terms of said Carey Act;

That a copy of said contract is attached to the bill of complaint, marked "Exhibit B";

Admit that thereafter and on the 21st day of August, 1907, the State of Idaho and the defendant,

Idaho Irrigation Company, made and entered into a certain contract for the construction of irrigation works to irrigate and reclaim the lands described in Exhibit "B" theretofore segregated by the Government of the United States in accordance with the terms of the Act of Congress of August 18th, 1894, and the acts amendatory thereto.

Admit that a copy of said contract between the State of Idaho and the defendant, Idaho Irrigation Company, Ltd., is attached to the bill of complaint and marked "Exhibit C";

VIII.

Admit that thereafter and on the 2nd day of January, 1909, the State of Idaho and the defendant, Idaho Irrigation Company, Ltd., entered into a further and supplemental contract amending and supplementing the said contract of August 21st, 1907;

Admit that a copy of said supplemental contract between the State of Idaho and the Idaho Irrigation Company, Ltd., is attached to the bill of complaint and marked "Exhibit D";

IX.

Admit that thereafter and at various times and dates, the defendant, Idaho Irrigation Company, Ltd., entered into certain contracts with the plaintiffs and their predecessors in interest for the sale of water rights to be used for the irrigation and reclamation of certain lands within said segregation;

Admit the said contracts were made and issued upon a certain printed form, which said form had been approved by the State Board of Land Commissioners of the State of Idaho, and was known and referred to as Form R-48;

Admit that said contracts, so issued to the plaintiffs and some certain other settlers upon said project, were and are identical, except the names of the various contract-holders and the description of the land to which the water right was to become appurtenant;

Admit that a copy of said form of contract is attached to the bill of complaint and marked "Exhibit E";

X.

Admit that by the terms of said contracts, Exhibits "C" and "D," the defendant, Idaho Irrigation Company, Ltd., contracted with the State of Idaho to furnish and deliver to the owners of shares of the Big Wood River Reservoir and Canal Company, Ltd., the appropriated waters to which said second party may be entitled, in accordance with the contracts existing between said owners of shares of the Big Wood River Reservoir and Canal Company, Ltd., and said Idaho Irrigation Company, Ltd., and in accordance with the laws of the State of Idaho;

Admit that said water was to be furnished for the reclamation of the lands included in said segregation lists numbers 9, 10, 11, 12, and 22, together with any other lands not included within said segre-

gation, but which are so situated as to be susceptible of irrigation and reclamation from the canal and distributing system designed for the irrigation of the lands included in the aforesaid lists:

XI.

Deny that under and by virtue of the contracts aforesaid, the said Idaho Irrigation Company, Ltd., became and was bound to sell to all persons who should apply, shares of stock in the said Big Wood River Reservoir and Canal Company, Ltd., evidencing water rights to the extent of one-eightieth ($1/80$) of a cubic foot of water per second of time for the irrigation of each and every acre so long as such appropriation and supply of said irrigation company would permit; but aver that it became and was the duty of the said defendant, Idaho Irrigation Company, Ltd., to sell water rights in accordance with the terms and provisions of the contracts, Exhibits "C" and "D," between the State of Idaho and the said defendant company, and the laws pertaining thereto, and not otherwise;

Deny that by the terms of said contracts, when the said Idaho Irrigation Company should have sold water rights sufficient to exhaust appropriations, carrying and distributing capacity, the ownership of said Idaho Irrigation Company, Ltd., in and to said canals, reservoirs, dams and ditches, and irrigation works ceases; and that the said irrigation system, as well as the appropriation of water therefor, should become the property of the said Big Wood River Res-

ervoir and Canal Company, Ltd., and the ownership of said system should become vested in the owners of the shares of stock in the said Big Wood River Reservoir and Canal Company, Ltd., and that thereupon, the interest of the said Idaho Irrigation Company, except as a creditor under the terms of the contract, and its right to sell further rights and further shares of stock therein should cease and terminate; but these defendants aver that under and by virtue of the terms of the contracts, Exhibits "C" and "D," between the State of Idaho and defendant, Idaho Irrigation Company, Ltd., it was understood and agreed that the existing laws under which said contracts were made should become a part thereof; that the ownership of said irrigation system, the control and operation thereof, and the transfer of the said system to the owners of water rights in said system, the rights, duties and obligations of the defendant, Idaho Irrigation Company, Ltd., are controlled, fixed, and to be determined under the terms of said Exhibits "C" and "D", and the laws under which said contracts were made, and not otherwise;

XII.

Deny that thereafter and for the purpose of securing funds with which to build and construct said irrigation works and system, said Idaho Irrigation Company, Ltd., made and executed its certain adjustment mortgage, pledging, covering and conveying all of its dams, ditches, and canals, headgates and other property, both real and personal, of all

kinds, to secure an issue of bonds as in said adjustment mortgage provided and described; but these answering defendants aver that after said irrigation works were practically completed, for the purpose of reorganization and refinancing itself, the defendant, Idaho Irrigation Company, Ltd., did, on the 1st day of anuary, 1913, make and execute its certain adjustment mortgage, a copy of which is attached to the bill of complaint and marked "Exhibit F";

Admit that the bonds therein mentioned were sold to various and divers persons;

XIII.

Deny that thereafter the said Idaho Irrigation Company, Ltd., being in default in the payment of principal and interest upon said bonds so issued for the purpose of compromise and settlement, then and there caused its certificate of capital stock, together with the certificates of capital stock of the Big Wood River Reservoir and Canal Company, Ltd., which it then held or afterwards should acquire to be assigned and transferred to certain persons known as the bondholders' committee of the Idaho Irrigation Company, Ltd.;

Deny that by means of said assignment, the ownership and control of the shares of stock of the Idaho Irrigation Company, Ltd., as well as the shares of the capital stock of the Big Wood River Reservoir and Canal Company, Ltd., then remaining in the hands of said Idaho Irrigation Company, Ltd., to-

gether with such shares of stock as it should afterwards acquire, became vested in the same persons who had become and were the purchasers and holders of the bonds of the Idaho Irrigation Company, Ltd., issued under and by virtue of said adjustment mortgage, Exhibit "F";

Deny that thereby, the holders of the bonds of the Idaho Irrigation Company, Ltd., and the holders of its capital stock became and were in truth and in fact identical, and that the said bondholders of the said bonds in fact became and ever since said date have been and now are the stockholders of said Idaho Irrigation Company, Ltd.

XIV.

As to whether, at the time of the purchase of the said bonds of the Idaho Irrigation Company, Ltd., by the various bondholders, the said bondholders and each and all of them were well aware of the consideration of the said bonds and were familiar and conversant with the terms of the adjustment mortgage, the contracts of the Idaho Irrigation Company, Ltd., with the settlers, and with the plaintiffs in particular, and the contracts of the Idaho Irrigation Company, Ltd., with the State of Idaho, and took said bonds with full knowledge of all the conditions and terms thereby imposed, these answering defendants are without sufficient knowledge or information to form a belief thereon, and basing their denial upon that ground, deny each of said allegations contained

in Paragraph Fourteen of the bill of complaint herein.

XV.

Deny that thereafter the said Idaho Irrigation Company, Ltd., was taken over in its entirety by means of the assignments aforesaid by the persons holding the bonds of the said Idaho Irrigation Company, Ltd.;

Deny that the ownership of the stock and bonds of the Idaho Irrigation Company, Ltd., is in fact vested in a certain committee known as the bondholders' committee of the Idaho Irrigation Company, Ltd.;

Deny that the affairs, property rights, and franchises of the said Idaho Irrigation Company, Ltd., are now being run, managed and operated by said bondholders' committee solely for the benefit of the holders of the stock and bonds of said company; deny that said persons are identical;

But in this connection, these answering defendants aver that the said Idaho Irrigation Company, Ltd., is being controlled and operated by its officers and directors under and by virtue of its Articles of Incorporation, the laws of the State of Idaho, and not otherwise; that said defendant, Idaho Irrigation Company, Ltd., is faithfully keeping and performing all the obligations of its contracts with the State of Idaho, Exhibits "C" and "D," and is faithfully keeping and performing all the obligations of its con-

tracts with the various stockholders of the Big Wood River Reservoir and Canal Company, Ltd.;

These answering defendants further aver that Paragraphs Thirteen, Fourteen and Fifteen of the bill of complaint herein should be dismissed from the bill of complaint for the following reasons:

(a) That the allegations contained therein fail to state sufficient facts in equity to entitle the plaintiffs herein to the relief demanded, or any relief;

(b) That the said allegations are wholly immaterial to any relief prayed for in the bill of complaint herein.

XVI.

Admit the defendant, Idaho Irrigation Company, Ltd., was formed for the purpose of the actual irrigation and reclamation of the segregations mentioned in said contracts, Exhibits "C" and "D."

As to whether the owners of said corporate stock of said Idaho Irrigation Company, Ltd., and the owners and purchasers of said bonds, issued under and by virtue of said adjustment mortgage and secured thereby, were well aware of the conditions and terms of the said contract of the Idaho Irrigation Company, Ltd., and the State of Idaho, and the Idaho Irrigation Company, Ltd., with the plaintiffs and other settlers, and were informed and aware of the terms, limitations and conditions imposed by said contracts, these answering defendants have no knowledge or information sufficient to enable them to form a belief thereon, and basing their denial

upon that ground, deny each and every of said allegations contained in Paragraph Sixteen of the bill of complaint;

XVII.

These answering defendants admit that each of the plaintiffs is the holder of a contract issued by the defendant, Idaho Irrigation Company, Ltd., in the form attached to the bill of complaint herein and marked "Exhibit E";

Deny that each and every contract-holder of the said Idaho Irrigation Company, Ltd., holds a similar contract differing only in name and description of the land;

Admit that the several plaintiffs are the owners of land in said project covered by contracts aggregating four thousand five hundred ninety-six (4,596) acres of land within said segregation, together with an equal number of shares of the capital stock of the Big Wood River Reservoir and Canal Company, Ltd.;

XVIII.

Admit the allegations contained in Paragraphs Eighteen and Nineteen of the bill of complaint herein;

XX.

Admit that said contracts aforesaid, of the Government of the United States and the State of Idaho, and of the State of Idaho and the Idaho Irrigation Company, Ltd., and of the Idaho Irrigation Company, Limited, and these plaintiffs, and the Idaho Ir-

rigation Company, and each and every contract-holder on the said segregation, provided in substance that the said Idaho Irrigation Company, Ltd., should construct a reservoir and canal system sufficient to irrigate and reclaim a certain tract of land described in said contracts, containing approximately one hundred fifty thousand (150,000) acres;

Deny that said contracts further provided that the said Idaho Irrigation Company, Ltd., should sell water rights of one-eightieth ($1/80$) of a cubic foot per second of time per acre for the irrigation and reclamation of said land, and that it should construct irrigation works of such capacity as to be able in fact to deliver and furnish one-eightieth ($1/80$) of one cubic foot of water per second of time per acre for each acre of land within said segregation;

Deny that the certificates of stock in the Big Wood River Reservoir and Canal Company, Ltd., should entitle the purchaser thereof to receive one-eightieth ($1/80$) of one cubic foot of water per second of time per acre;

Admit that the certificates of stock in the Big Wood River Reservoir and Canal Company, Ltd., entitle the purchaser thereof to receive one-eightieth ($1/80$) of one cubic foot of water per second of time per acre;

Admit that the certificates of stock in the Big Wood River Reservoir and Canal Company, Ltd., entitled the purchaser thereof to a proportionate interest in the irrigation works and system;

Admit that said contracts, Exhibits "C" and "D," limit the rights of the said Idaho Irrigation Company, Ltd., to the sale of a sufficient number of the shares of capital stock in said Big Wood River Reservoir and Canal Company, Ltd., to the capacity of the system to furnish and distribute water in accordance with said contracts, and to the actual appropriation of water available for irrigation purposes;

Admit that under and by virtue of the terms of the said contracts, Exhibits "C" and "D," when the said Idaho Irrigation Company, Ltd., had in truth and in fact sold shares in said company which should and did represent the actual amount of water available and appropriated, and when said sale of shares should equal the carrying capacity of said irrigation system, then and in that event, the said Idaho Irrigation Company should make no further sales of water rights by means of selling and issuing shares of stock in the said Big Wood River Reservoir and Canal Company, Ltd.; deny that said defendant, Idaho Irrigation Company, Ltd., has sold shares of stock in the Big Wood River Reservoir and Canal Company, Ltd., which represent either the full amount of water available and appropriated or the carrying capacity of the said irrigation system;

Further answering Paragraph Twenty of the bill of complaint herein, these answering defendants aver that since the making and executing of the contracts, Exhibits "C" and "D," between the State of

Idaho and the defendant, Idaho Irrigation Company, Ltd., and long prior to the filing of the bill of complaint herein, there had been relinquished and released from said segregations approximately thirty thousand six hundred eighty-three and 48/100 (30,683.48) acres; that there is now pending before the Department of the Interior a relinquishment list of eighteen thousand two hundred seventy-four and 80/100 (18,274.80) acres, leaving a gross acreage in said segregation of approximately one hundred twenty-one thousand (121,000) acres;

XXI.

Admit that the lands of the plaintiffs and all other lands within said segregation are semi-arid in character and require the artificial application of water or irrigation in order to raise thereon ordinary agricultural crops;

Deny that said land requires the application thereof of at least five-eighths ($5/8$) of a cubic inch of water per acre per second of time, or one-eightieth ($1/80$) of one cubic foot of water per second of time for each acre during the irrigation season for the successful irrigation, reclamation and cultivation thereof;

Deny that one-eightieth ($1/80$) of one cubic foot of water per second of time per acre is necessary for the raising of ordinary agricultural crops thereon;

Deny that with a less amount of water than one-eightieth ($1/80$) of one cubic foot of water per sec-

ond of time per acre of land during the irrigation season, such lands are worthless and valueless for agricultural purposes or for the purposes of raising ordinary agricultural crops;

Deny that the irrigation system, reservoirs, and canals constructed by the Idaho Irrigation Company, Ltd., under the provision of the contracts between said company and the State of Idaho, and the water supply appropriated by said defendant company are in fact not sufficient to irrigate the entire segregation described in said contracts;

Deny that said irrigation system, reservoirs and canals so constructed are of such size and capacity to enable the said defendant, Idaho Irrigation Company, Ltd., to furnish one-eightieth ($1/80$) of one cubic foot of water per second of time per acre of land during the irrigation season for seventy thousand acres of land, and no more;

Deny that the total supply of water appropriated and available for distribution by and through said system enables said Idaho Irrigation Company, Ltd., to furnish and deliver one-eightieth ($1/80$) of one cubic foot of water per second of time per acre of land to seventy thousand (70,000) acres of land and no more, but these answering defendants aver that the capacity of the reservoir and canal system constructed by it under the terms of plaintiffs' Exhibits "C" and "D" is sufficient to deliver an ample supply of water to all of the lands now remaining in said segregation; that the total supply of water appro-

priated and available for distribution through said system is sufficient to enable the said Idaho Irrigation Company, Ltd., to furnish and deliver an ample supply of water to all of the lands now remaining in said segregation;

XXII.

Deny that said defendant, Idaho Irrigation Company, Ltd., has already sold and disposed of, to settlers upon said land, over ninety thousand (90,000) shares of the capital stock of the Big Wood River Reservoir and Canal Company, Ltd.;

Deny that it has already wrongfully, or otherwise, oversold its capacity to transport and deliver water;

Deny that it has already oversold its appropriation of water by approximately twenty-four thousand (24,000) shares or at all;

Further answering Paragraph Twenty-two of the bill of complaint herein, these answering defendants aver that the said defendant, Idaho Irrigation Company, Ltd., has sold water rights to the total amount of approximately eighty-seven thousand two hundred thirty-three and $76/100$ (87,233.76) shares; that there remains unsold within said segregation and susceptible of irrigation from said system, a total acreage of approximately twenty-five thousand six hundred thirty-eight (25,638) acres;

XXIII.

Deny that of the water rights evidenced by shares of the capital stock of the Big Wood River Reservoir and Canal Company, so sold by the Idaho Irrigation

Company, Ltd., to various settlers upon its segregation, the said Idaho Irrigation Company, Ltd., or its trustees, the Equitable Trust Company and Lyman Rhoades and M. R. Kays, have reacquired by purchase at sheriff's sale and otherwise, twenty-one thousand five hundred fifty-five (21,555) shares of stock in said Big Wood River Reservoir and Canal Company, Ltd.;

Deny that said shares of stock are now held in the name of the Equitable Trust Company and Lyman Rhoades and M. R. Kays, as trustees, but these answering defendants aver that by means of the foreclosure of certain contracts, according to law, there has been reacquired and is now held by M. R. Kays, as trustee, 6,822.75 shares of stock of the Big Wood River Reservoir and Canal Company, Ltd.; that by means of the foreclosure of certain contracts there has been reacquired and is now held in the name of Lyman Rhoades, as trustee, 3,884.16 shares of stock of the Big Wood River Reservoir and Canal Company, Ltd.; that said shares of stock so reacquired and so held by M. R. Kays, trustee, and Lyman Rhoades, trustee, were acquired at sheriff's sale, and otherwise, and that the said M. R. Kays and Lyman Rhoades, as trustees, are the legal owners and holders thereof;

Admit that said shares of stock so held are the assets of the Idaho Irrigation Company, Ltd., and are held for the benefit of the bondholders of said company;

XXIV.

Deny that the shares of stock of the Big Wood River Reservoir and Canal Company, Ltd., already sold by the Idaho Irrigation Company, Ltd., represent the entire carrying capacity of the said ditches and laterals and entire storage capacity of said reservoir;

Deny that said shares so sold in fact represent the entire appropriation of water of the Idaho Irrigation Company, Ltd., available for distribution and use in irrigation and reclamation of said lands;

Deny that the remaining shares of the capital stock of the said Big Wood River Reservoir and Canal Company, Ltd., held by the Idaho Irrigation Company, Ltd., and by M. R. Kays, trustee, and by Lyman Rhoades, trustee, represent neither carrying capacity nor appropriated water, but these answering defendants aver that if the said Idaho Irrigation Company and said trustees are permitted to sell said shares of stock so held, said shares will represent an ample supply of water and a sufficient carrying capacity in the irrigation works of said defendant company to properly irrigate the land to which said water is appurtenant;

XXV.

Deny that said defendants, Idaho Irrigation Company, Ltd., and M. R. Kays, trustee, and Lyman Rhoades, trustee, are now offering for sale and endeavoring to sell the remaining shares of stock in the Big Wood River Reservoir and Canal Company,

Ltd., now owned or held by them in their various capacities as aforesaid;

Admit that the purchasers of said shares will be entitled to share in the water supply and the carrying capacity of the said irrigation system;

Deny that such sale would result in depriving plaintiffs and all other contract holders upon said project of a proportionate share of their water rights and of a proportionate share of their interest in said canal system;

Deny that the same would decrease the water rights of the plaintiffs and all others upon said segregation who now actually own water rights;

Deny that such sales would decrease the water rights of the plaintiffs and all other settlers and contract holders to such an extent as to render the water rights of the plaintiffs worthless and of no value;

Deny that said sale would so reduce the supply of water as to prevent the plaintiffs and all others upon said segregation from raising ordinary agricultural crops upon their land;

Deny that plaintiffs would be greatly and irreparably damaged thereby;

Deny that their property and property rights would thereby be diminished and destroyed;

Deny that the said defendant, Idaho Irrigation Company, Ltd., is insolvent and unable to respond to these plaintiffs in damages;

Deny that plaintiffs have no plain, speedy and adequate remedy at law;

Admit that the defendants, the Equitable Trust Company, as trustee, and Lyman Rhoades, as trustee, and M. R. Kays, as trustee, are not under the law insurers of the success of the project, and are not amenable to an action in damages herein;

Deny that unless an injunction be granted by this Court permanently enjoining and restraining said defendants and each of them from selling, disposing of and issuing the stock of the said Big Wood River Reservoir and Canal Company, Ltd., which they now own and hold, and which now stands upon the books of the company in the name of the said Idaho Irrigation Company, Ltd., and Lyman Rhoades, as trustee, and M. R. Kays, as trustee, that the plaintiffs, as well as each and every other settler and owner of water rights on said project, will suffer great loss and damage and irreparable injury;

Further answering the bill of complaint herein, these answering defendants aver that the defendant, Idaho Irrigation Company, Ltd., has the lawful right to sell and is offering for sale the remaining and unsold shares of stock in the Big Wood River Reservoir and Canal Company, Ltd., equal in number to the irrigable acres remaining in said project after deducting the number of acres relinquished and to be relinquished. The defendant, Idaho Irrigation Company, Ltd., does not claim the right to, nor is it offering for sale shares of stock in the Big

Wood River Reservoir and Canal Company, Ltd., covering any of the lands relinquished from said project, or to be relinquished;

That the defendants, Equitable Trust Company, a corporation, Lyman Rhoades, and M. R. Kays, trustees, have the lawful right to, and are offering for sale the lands and shares of stock reacquired and now held by Lyman Rhoades and M. R. Kays, trustees, and particularly described in Paragraph Four of this answer;

XXVI.

Further answering the plaintiffs' bill of complaint, and as a further defense thereto, these answering defendants aver that the plaintiffs are estopped to maintain the bill herein by reason of prior adjudication of the sufficiency of the water supply of the defendant, Idaho Irrigation Company, Ltd., and the capacity of the irrigation works constructed by said company;

And in this connection, these answering defendants aver that under and in accordance with the terms of plaintiffs' Exhibits "C" and "D," and in accordance with the laws of the United States and the laws of the State of Idaho, pertaining thereto, the defendant, Idaho Irrigation Company, Ltd., constructed a certain storage reservoir, together with a distributing system of canals, laterals and ditches, for the purpose of reclaiming and irrigating the lands described in plaintiffs' Exhibit "B"; that said storage reservoir and distributing system, except in

a few minor particulars, is completed and is of sufficient capacity to furnish an ample supply of water to all of the irrigable lands now remaining in said segregation; that the water supply of said defendant, Idaho Irrigation Company, Ltd., is sufficient in volume to furnish an ample supply of water for the proper irrigation of all of the lands now remaining in said segregation; that said works so constructed were practically completed long prior to the filing of the bill herein; that long prior to the filing of plaintiffs' bill, and during the year 1911, the State of Idaho, in accordance with the terms of plaintiffs' Exhibits "B," "C" and "D," and in accordance with the laws of the United States and the State of Idaho, and the rules and regulations of the Secretary of the Interior, made proof of the reclamation of one hundred twenty thousand (120,000) acres of the lands embraced within the said segregation, including the lands of the plaintiffs herein, in the local land office at Hailey, Idaho; that thereafter, and in accordance with the laws of the United States and the rules and regulations of the Secretary of the Interior, the officers of the local land office at Hailey, Idaho, caused to be published in a newspaper at Richfield, Idaho, a notice to the effect that the State of Idaho was making proof of reclamation of said lands and that anyone interested therein might appear and contest such proof of reclamation; that in accordance with the laws of the United States and the rules and regulations of the Secretary of the Interior, the proof

of reclamation of the State of Idaho was forwarded to the Commissioner of the General Land Office at Washington, D. C., and that thereafter and during the year 1915, and after a field examination by the officers and agents of the Secretary of the Interior, patent to one hundred seventeen thousand six hundred seventy-seven and $24/100$ (117,677.24) acres in said segregation, including the lands of the plaintiffs herein, was issued to the State of Idaho by the Secretary of the Interior;

That the facts herein set out constitute a determination by the State of Idaho and the Secretary of the Interior of the water supply of the defendant, Idaho Irrigation Company, Ltd., and of the capacity of the irrigation works constructed by said company, and that such determination is conclusive and binding upon this honorable court.

All of which matters and things these defendants are ready and willing to aver, maintain and prove as this honorable court shall direct, and, therefore, pray to be hence dismissed with their reasonable costs and charges in this behalf most wrongfully sustained.

WALTERS & HODGIN,
Residing at Twin Falls, Idaho.
OPPENHEIM & LAMPERT,
Residing at Boise, Idaho.

Solicitors for Defendants, Idaho Irrigation Company, Ltd., Equitable Trust Company of New York,

a corporation, trustee, Lyman Rhoades, trustee, and M. R. Kays, trustee.

Filed May 15, 1919.

(Title of Court and Cause.)

COMPLAINT IN INTERVENTION.

Comes now the State of Idaho and by leave of the Court first had and obtained, files this, its complaint in intervention in the above entitled matter and for cause of action alleges as follows:

I.

That the original complaint in this action was filed in the District Court of the Fourth Judicial District of the State of Idaho, in and for the County of Lincoln, on the 7th day of December, 1917. That thereafter on the 21st day of January, 1918, said Court, on the petition of the defendants, Idaho Irrigation Company, Limited, and M. R. Kays, as Trustee, duly gave, made and entered an order in the said action, directing the removal of the same to the above entitled Court, for the reason that the said action arises under the constitution and laws of the United States and that the value of the property and things therein in controversy exceeds the sum of \$3,000.00 and that the decision of said action involves the construction of Section 4 of that certain act of Congress approved August 18, 1894, entitled "An Act making Appropriations for Sundry Civil Expenses of the Government for the Fiscal Year ending June 30, 1895, and for other Purposes," (28 Stats. at Large, 372-422)

commonly known as the Carey Act and acts amendatory and supplemental thereto; that on the 5th day of February, 1918, transcript of the records and files of said cause in the said District Court of said Lincoln County, was duly filed with the Clerk of the above entitled Court and thereupon the said cause docketed in the Equity docket of this Court as cause 612 and the said action is now and at all times since has been, pending in this Court; that on the 10th day of February, 1919, the defendants' motion to dismiss said cause and to strike certain portions of the bill therein was denied and on the 15th day of May, 1919, the answer of the defendants and each of them was filed in this Court; that on the 5th day of February, 1920, an order was duly given, made and entered by this Court in said action, setting the same for trial on the 23d day of February, 1920; that no other or further proceedings have been had therein.

II.

That the State of Idaho, by reason of the matters and things hereinafter set forth and alleged, is interested in the decision and adjudication of the questions herein involved. That Warren G. Swendsen is now, and at all times herein mentioned since the 31st day of March, 1919, has been, the duly appointed, qualified and acting Commissioner of Reclamation of said State and that on or about the 2nd day of June, 1919, the said Warren G. Swendsen, as such Commissioner, made and entered of record in his office a certain order directing the intervention of

the State of Idaho in this cause, a full, true and correct copy of which said order is hereunto annexed, marked Exhibit 1, hereby referred to and made a part hereof as fully as though set forth at length herein; that immediately thereafter, the State Board of Land Commissioners of the State of Idaho, in meeting assembled, unanimously ratified, confirmed, approved and adopted the said order as an order and resolution of the said Board.

III.

That the said action is a suit in equity of a civil nature, brought by the plaintiffs as holders and claimants of lands entered by them under and by virtue of the aforesaid Act of Congress, approved August 18, 1894, commonly known as the Carey Act, to enjoin and restrain the defendants, and each of them, from selling or transferring certificates of stock or water rights for lands segregated or entered under the said Act of Congress, and for additional lands segregated and open to entry upon the application of the State of Idaho, by the United States, under the said Act of Congress; that the disposition of the said lands by the State of Idaho and by the United States, depends entirely, under the said Acts of Congress, on their irrigation and reclamation, which irrigation and reclamation depends entirely upon water rights and water contracts which are the subject matter of this suit; that the decision and adjudication of the questions herein involve the proper construction of the aforesaid Acts of Congress and

that said cause of action arises in part at least, under the constitution and laws of the United States; that the value of the property described in the complaint herein and involved in this action, exclusive of interest and costs, exceeds the sum of \$3,000.00; that the questions and issues presented in this complaint in intervention, and the matters in controversy herein, are identical with those presented in the issues between the plaintiffs and defendants and likewise involve the questions of the aforesaid Act of Congress in that this intervener joins the said plaintiffs in their prayer that further sale of water rights for lands segregated or entered under said Acts of Congress, be enjoined and restrained and that said action in this complaint in intervention is within the jurisdiction of this Court.

IV.

The intervener hereby refers to all the numbered paragraphs of plaintiffs' complaint herein, except paragraphs numbered 1 and 11, and by reference makes and adopts the same as a part hereof, as fully as though set forth at length herein.

V.

That the said Idaho Irrigation Company has made and entered into contracts for the sale of water rights with entrymen on the lands segregated as aforesaid, under their said system of irrigation works, said contracts being in form and effect the same as the contract set forth in plaintiffs' complaint and hereinbefore referred to, and with the

owners and holders of other lands susceptible of irrigation from the defendants' said system of works for a total amount of lands in excess of ninety thousand acres.

VI.

That on or about the day of , 1915, upon request of the Idaho Irrigation Company, Limited, and settlers holding water contracts with said company, your intervener, acting by and through its State Board of Land Commissioners, caused an investigation to be made by the State Engineer of the State of Idaho, to ascertain the amount of water appropriated by said Idaho Irrigation Company, Limited, and the amount of water actually available for distribution under the aforesaid contracts, as well as the acreage within said segregation which could be supplied by such water within its said project.

VII.

That pursuant to such investigation, said State Engineer filed his report with the said Board of Land Commissioners, to the effect that the total amount of water appropriated by and actually available for distribution by the Idaho Irrigation Company, through its said irrigation system, was an amount sufficient to supply water as provided for by said Exhibits B and C of plaintiffs' complaint, for seventy thousand acres of land and no more; and your intervener therefore alleges the fact to be that there is available for distribution through the canals and irrigation works of the said Idaho Irrigation

Company, Limited, one-eightieth of one cubic foot of water per second of time during the irrigation season, for each acre of seventy thousand acres of land and no more.

VIII.

That thereafter on or about the day of May, 1919, Warren G. Swendsen, as the Commissioner of Reclamation of the State of Idaho, made and entered and caused to be served upon the defendant, the Idaho Irrigation Company, Limited, an order forbidding said defendant to make any further or additional sales of water rights or shares of stock representing or evidencing water rights or enter into any further contract or contracts for the sale of water rights for lands to be watered from the system or irrigation works of said Idaho Irrigation Company, Limited, which said order was thereafter duly adopted, ratified, confirmed and approved by the State Board of Land Commissioners of the State of Idaho, in meeting assembled and still remains in full force and effect, a copy of which said order is hereunto annexed, marked Exhibit B and hereby referred to and made a part hereof as fully as though set forth at length herein.

IX.

Your intervener is further informed and believes, and upon such information and belief alleges that the said defendants contend that they have an adequate and sufficient supply of water for lands in excess of those for which contracts for the sale of water rights have already been made, and that said defendants threaten and intend, unless enjoined by

this honorable Court, to sell, or to enter into contracts, for the sale of water rights for lands in addition to those already sold, and that in event additional water rights be sold from the said system, that water will be available under said contracts for water rights only to the extent that the present holders of contracts are deprived thereof, which will result not only in untold hardship and privation and financial loss to persons who may purchase the said contracts, but as well to those persons who are already holders of such contracts and will also deprive those persons who are now the holders of such contracts of the property rights to which they are entitled under the terms of their contracts; that intervener stands in the capacity of a Trustee for the settlers upon the said irrigation project for the purpose of administration of the terms and provisions of the contracts between the State of Idaho and the said Idaho Irrigation Company, Limited, and between the Idaho Irrigation Company, Limited, and the various settlers and contract-holders upon said tract and by the constitution and statutes of the State of Idaho is also charged with the duty of controlling and regulating the public waters of said State in such a manner that the same may be put to beneficial use and be practically and beneficially used in the irrigation of land and production of ordinary agricultural crops; and that in its said capacity, intervener agreed with the said Idaho Irrigation Company, Limited and in turn said Idaho Irrigation Company contracted and agreed with the plaintiffs and all other

settlers that one-eightieth of a cubic foot of water per second of time per acre of land of the public waters of said State was necessary to be applied to the irrigation and reclamation of the lands segregated for and susceptible of irrigation under defendant Idaho Irrigation Company's said irrigation system; that said contracts, ever since the date of their respective execution, have been and now are of full force and effect.

WHEREFORE, intervener prays that the said defendants, and each of them, be restrained and enjoined from making any further or additional sales of water rights or shares of stock representing or evidencing water rights or entering into any further contract or contracts for the sale of water rights for lands to be watered from the system or the irrigation works of said Idaho Irrigation Company, Limited, and that the prayer of plaintiffs' complaint be granted.

STATE OF IDAHO,

Intervener.

By ROY L. BLACK,

Attorney General.

ROY BLACK,

Attorney General, State of Idaho.

DEAN DRISCOLL,

First Assistant.

*Residing at Boise, Idaho,
Attorneys for Intervener.*

(Duly verified.)

EXHIBIT I.
DEPARTMENT OF RECLAMATION
CAREY ACT MINUTES.

June 2, 1919.

It appearing to me, the Commissioner of Reclamation of the State of Idaho, that there is now pending in the District Court of the United States, in and for the District of Idaho, Southern Division, an action wherein Fred W. Gooding and others are plaintiffs, and the Idaho Irrigation Company, Limited, a corporation, and others, are defendants, the object of which said action is to enjoin and forbid the sale of more water rights by the said Idaho Irrigation Company, Limited, under and pursuant to contract or contracts, made and entered into between the State of Idaho and the said Idaho Irrigation Company, Limited, pursuant to the provisions of Section 4 of the Sundry Civil Appropriation Act of the Congress of the United States, approved August 10, 1894, commonly known as the "Carey Act," and Acts amendatory and supplemental thereto, and the statutes of the State of Idaho thereto pertaining, for the reason that the water supply of the said company is inadequate to irrigate more lands and to fulfill more contracts than have already been sold and issued; and the State of Idaho having a direct interest and obligation in prohibiting the sale of water rights in or by any irrigation company or enterprise, wherein the supply of water is not ample and sufficient;

IT IS HEREBY ORDERED that the said State, by and through the Commissioner of Reclamation, join in the said action by intervention or other appropriate proceedings, to the end that the prayer of said complaint be granted;

FURTHER, That the Attorney General of the State of Idaho be notified of the contents of this order and requested, as attorney for the State of Idaho, and Commissioner of the Department of Reclamation, to take such action as may be necessary to carry out this order.

(Signed) W. G. SWENDSEN,

Commissioner of Reclamation.

ATTEST: (Signed) SARAH M. TAGE,

Carey Act Clerk.

EXHIBIT "B."

The State of Idaho, having heretofore entered into a contract or contracts with the Idaho Irrigation Company, Limited, for the purpose of constructing certain irrigation works for the irrigataion and reclamation of a body of desert lands lying in Gooding and Lincoln Counties, Idaho, segregated by the United States Government, all pursuant to and under and by virtue of the provisions of Section 4 of the Sundry Civil Appropriation Act of the Congress of the United States, approved August 18, 1894, and commonly known as the "Carey Act," and the statutes of the State of Idaho appertaining thereto, of which said lands a large body has been entered by

actual settlers and contracts for the said delivery of water to said settlers made by the said Idaho Irrigation company, Limited;

And it now appearing to me, the Commissioner of Reclamation of the State of Idaho, in my judgment, that the water supply of the said Idaho Irrigation Company, Limited, is not adequate to properly or sufficiently irrigate, reclaim or cultivate more of the land so proposed in the aforesaid contract or contracts to be irrigated than has already been entered and sold;

NOW THEREFORE, under and by virtue of the authority in me vested, said Idaho Irrigation Company, Limited, is hereby forbidden from making any further or additional sales of water rights or of shares of stock representing or evidencing water rights, or entering into any further contract or contracts for the sale of water rights for lands to be watered from the system or irrigation works of the said Idaho Irrigation Company, Limited.

The order shall be effective forthwith and continue in force until my further order;

And it is further ordered that the 20th day of May, A. D. 1919, at the hour of 10 o'clock a. m., at my office in the State House in Boise City, Ada County, Idaho, be and the same is hereby fixed as the time and place when and where the said Idaho Irrigation Company, Limited, may, if it so desire, appear before me and show cause, if any they have, why said order shall not be made permanent.

IT IS FURTHER ORDERED that certified copy of this order be delivered forthwith to Oppenheim & Lampert and Walters & Hodgins, local attorneys of the said Idaho Irrigation Company, Limited, and notice thereof, by like certified copy be given the President or Secretary of the said Company.

Dated at Boise, Idaho, this day of May, 1919.

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Filed February 3, 1920.

—————  
(Title of Court and Cause.)

**ANSWER OF DEFENDANTS TO COMPLAINT  
IN INTERVENTION OF THE STATE OF IDAHO**

Come now the defendants above named and answering the complaint in intervention of the State of Idaho, each for himself and itself, admit, deny and allege as follows:

1.

Defendant admits the allegations of paragraphs 1, II and III of the complaint in intervention so far as the same are material and are not bald statements of legal conclusions.

2.

In answer to paragraph IV wherein intervenor adopts by reference all the numbered paragraphs in plaintiffs' complaint herein except paragraphs Nos. I and II, these answering defendants hereby refer to their answer heretofore filed to the said paragraphs of the complaint so adopted by intervenor and pray that their answer to said complaint be taken and considered also as their answer to intervenor.



## 3.

Admit that the defendant, Idaho Irrigation Company, has made and entered into contracts for the sale of water rights with entrymen on the segregated lands referred to in the complaint and with the owners and holders of land susceptible of irrigation from the said system of works as alleged in the complaint in intervention but deny that said contracts have been entered into for a total amount of land in excess of 90,000 acres, admit that the total amount of water shares so contracted for approximates 90,000 but allege that the exact amount thereof is less than 90,000, to-wit: 88,130 shares.

## 4.

Admit that the intervener, through its state board of land commissioners, caused the state engineer to make the investigation referred to in paragraph VI of the complaint in intervention and among other things for the purposes so alleged.

## 5.

In answer to paragraph VII of the complaint in intervention the answering defendants admit that pursuant to such investigation the said state engineer filed his report of the said state board of land commissioners and alleged that said report was dated February 27, 1917, but deny that the effect of said report was that the total amount of water appropriated by and actually available for distribution by the Idaho Irrigation Company through its said irrigation system was an amount sufficient to supply

water as provided for by Exhibits B and C of plaintiffs' complaint for 70,000 acres and no more. Defendants allege that the only reference in said report to 70,000 acres is as follows:

#### **WATER SUPPLY**

The result of the findings was 70,000, using the reservoir capacity of 177,600 acre-feet as determined by this office, with a system loss of 30%. Two periods, each consisting of 153 days, were considered, leaving a balance of 12,800 acre-feet in the reservoir to care for losses from seepage and evaporation. The duty of water for the 153-day period is 3.825 acre-feet per acre, based on  $5/8$  of an inch to the acre, plus 30% loss brings the duty up to 4.973 acre-feet per acre.

Defendants further allege that said state engineer in arriving at a finding of a water supply for 70,000 acres based his conclusion upon an assumed duty of 3.825 acre feet per acre, net delivery to the water users, but defendants allege that neither in said report nor at any other time has the state engineer, the state board of land commissioners or the department of reclamataion of the state of Idaho found and determined the proper duty of water upon the project constructed by the defendant, Idaho Irrigation Company. Defendant alleges that the state engineer's figure as to the duty of water referred to in the foregoing report was not based upon any finding by him, as an ingineer, as to a reasonable duty of

water but upon an erroneous legal interpretation of the contracts aforesaid, that is to say that irrespective of the entryman's ability to apply the water to a beneficial use he was entitled to the continuous flow of  $5/8$  of a miner's inch to each acre of land continuously for a period of 153 days.

Defendants further allege that on or about November 1st, 1917, the state board of land commissioners of the state of Idaho, by unanimous vote requested the state engineer to make a tabulated report showing how many acres of land could be irrigated from the Idaho Irrigation Company's project, assuming a duty of water at 2.25, 2.50 and 3.00 acre-feet delivered to the farmer's headgate; that thereafter, to wit on November 12, 1917, the state engineer filed a report in reply to such request showing that with an assumed duty of 2.25 acre feet delivered at the farmer's headgate, the resulting acreage under the said project would be 116,200 acres of irrigable land, at an assumed duty of 2.50 acre feet, 104,600 acres and at an assumed duty of 3.00 acre feet, 87,000 acres. A copy of the said supplemental report so filed by the state engineer with the state board of land commissioners is attached hereto marked "Exhibit A" and by reference made a part hereof.

Defendants deny intervener's allegations that there is available for distribution through the canal and irrigation works of the said Idaho Irrigation Company, Limited, one-eightieth of one cubic foot of

water per second of time during the irrigation season for each acre of 70,000 acres of land and no more but allege that water is so available for distribution for an acreage not only in excess of 88,130 acres for which water has now been sold but for an acreage in excess of 116,200, the exact amount of which is dependent upon the fixing by this court of a proper duty of water in this suit and defendants allege that two acre feet per acre is a proper duty of water under the system constructed by the defendant, Idaho Irrigation Company.

For further answer to the allegations contained in paragraph VII of the complaint in intervention defendants allege that on or about February 19, 1915, the government of the United States patented to the State of Idaho 117,677.24 acres of the lands segregated under and for the project constructed by the defendant, Idaho Irrigation Company and that said patent was issued on the representation of the State of Idaho that the said lands were reclaimed under the provisions of the Federal Carey Act. Defendants further allege that the State Board of Land Commissioners on or about the 19th day of March, 1918, made request to the federal government for the patenting of 1,635.80 acres of the lands so segregated under the Federal Carey Act accompanied by the representation of the State of Idaho that the said lands are reclaimed under the provisions of the Federal Carey Act, which application for patent is now pending before the Secretary of the Interior of

the United States. Defendants allege that the representations of the State of Idaho aforesaid on the basis of which patent to 117,677.24 acres was secured and application for patent to 1,635.80 acres is now pending are based upon the finding of the State Engineer of the State of Idaho and the State Board of Land Commissioners thereof that there was available for distribution through the canals and irrigation works constructed by the defendant Idaho Irrigation Company an adequate water supply therefor in accordance with the terms of the several contracts between the defendant Idaho Irrigation Company and the State of Idaho and between the defendant Idaho Irrigation Company and the plaintiffs and all other water purchasers under the said system of the said Idaho Irrigation Company.

These defendants admit the allegations contained in paragraph VIII of the complaint in intervention, but deny that the injunctive order therein referred to issued by the said Warren G. Swendsen as Commissioner of Reclamation of the State of Idaho had or has any force or effect or is relevant to the issues involved in this controversy.

7.

Defendants admit that they contend that there is an adequate and sufficient supply of water for lands in excess of those for which contracts for the sale of water rights have already been made and allege such to be the fact, but deny that in the event additional

water rights be sold from the system that present holders of water contracts will be deprived of any part of the water to which they are entitled under their said contracts and deny that the said present holders of contracts will suffer any loss or damage as the result of the alleged contemplated or any additional sales of water contracts by the defendant Idaho Irrigation Company. Defendants admit that the contracts referred to in paragraph IX of the complaint in intervention provide for a *rate of flow* of  $1/80$  cubic feet of water per second of time per acre of land, but deny that such term as used in the contract defines the quantity or amount of water to which each contract holder is entitled. Defendants allege that under and by virtue of the provisions of the Carey Act and a proper interpretation of the contracts aforesaid the amount of water to which each contract holder is entitled does not exceed two acre feet per acre.

WHEREFORE, Defendants pray that the complaint in intervention be dismissed and that they have judgment for their costs in this behalf incurred.

WALTERS & HODGIN,

Residence and P. O. Address, Twin Falls, Idaho.

OPPENHEIM & LAMPERT,

Residence and P. O. Address, Boise, Idaho.

*Attorneys or Defendants.*

(Duly verified.)

EXHIBIT A.  
*ENGINEER'S REPORT.*

"State Land Board, Capitol Building,

"Boise, Idaho.

"Gentlemen: As per your request, under date of Nov. 1, I herewith submit the following:

"On page 3, 'Water Supply,' of my complete report to you, under date, Feb. 27, 1917, covering the project of the Idaho Irrigation Company, you will note the average maximum amount available to the Idaho Irrigation Company is 401,500 acre feet, assuming no river or reservoir losses.

"After deducting these losses, as stated on pages 5 and 6, 'Water Supply,' in the above-referred to report, there is a balance of 373,400 acre feet upon which the company may depend.

"From this amount, a distribution loss of 30 per cent must be deducted, as noted on page 4, 'Water Supply' of the complete report. This leaves available for actual delivery at the headgates, the amount of 261,380 acre feet.

"The tabulation requested follows:

| Water duty | Resulting acreage |
|------------|-------------------|
| 2.25       | 116,200           |
| 2.50       | 104,600           |
| 3.00       | 87,100            |

"In regard to approved plans for additional storage in the Magic reservoir. The plan approved by this department July 20 this year, and by the land board 10 days later merely approves the type of

structure in spillway to be used to bring the maximum elevation of the water surface of the reservoir to elevation 4935.00.

"Plans for bringing the water surface to the above elevation (4935.00) was approved by a former state engineer under date Feb. 25, 1910, and by the land board under date April 12, 1910.

"Respectfully,

"(Signed) J. H. SMITH,

*"State Engineer."*

Filed Feby. 18, 1920.

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(Title of Court and Cause.)

DECISION.

July 19, 1920.

W. G. Bissell, W. T. Stafford, and Karl Paine,

*Attorney for plaintiffs,*

Walters & Hodgin, and Oppenheim & Lambert,

*Attorneys for Defendants.*

Roy L. Black, Attorney General, and Dean Driscoll,  
Assistant Attorney General,

*Attorneys for Intervenor.*

DIETRICH, DISTRICT COURT:

The questions of law involved are in the main such as we have had recent consideration in other cases brought in this jurisdiction, and hence extended discussion could serve no useful purpose.

To the contention that the plaintiffs are concluded by the patent proceedings in the General Land Office, it is sufficient to respond that they were not



parties to the proceedings, and are not bound thereby. They hold contracts imposing upon them heavy obligations, and in turn conferring upon them valuable rights. It would be shocking to hold that these rights could be taken away or substantially impaired by a finding of fact or conclusion of law (we are not advised which) made by an administrative officer in an *ex parte* proceeding in which they did not have an opportunity to be heard.

As to the lands and water rights purchased by the defendants at foreclosure sale, there is a measure of merit in the suggestion that such water rights are appurtenant to the land, and that the footing of the defendants is the same as that of any other owner, but even so, the consideration presents no serious difficulty. If defendant sold water rights in excess of its available water supply it did wrong, and if to right such wrong we reduce the project by extinguishing rights of the wrong doer, however it may have acquired them, there is no one to complain. No private party has any adverse interest, public policy will be subserved for both the federal and state statutes contemplate an ample rather than an insufficient supply for all lands within the project, and defendant is not injured, for by the proposed action the project will be simply reduced to the size at which it should have been held, under the law. In other words, after the proposed reduction, the defendant will have as many contracts in the aggregate as it originally had the right to sell, and hence the plain-

tiffs' prayer is for a restoration of the project to a legal status, by taking from defendant water rights which, though legally acquired, are the equivalent of other rights which it illegally sold, and the proceeds of which it appropriated and retains. This all, of course, upon the assumption that defendant wrongfully sold in excess of its available water supply: and we pass to that inquiry.

The Federal Law (Carey Act) expressly requires an ample supply of water, and clearly contemplates that only ample water rights shall be sold. Under the statutes of the state (Idaho Compiled Statutes, Sections 3065 and 5636), it was unlawful for the defendant to sell in excess of the capacity of its works or more water than was available to it. *Rayl v. Twin Falls Salmon River Land & Water Co.*, 30 Idaho 41. And by its contract with the state defendant expressly covenanted that it would not exceed these limitations. In its contracts with the plaintiffs and other settlers it agreed that for the consideration named the settler was to "receive one-eightieth of a cubic foot of water per acre per second of time," for the land described, and under the ruling in *Twin Falls Salmon River Land & Water Co. vs. Caldwell*, 242 Fed. 177, where a similar contract was under consideration, it is thought, that this provision is to be construed as entitling the settler to a continuous flow of water at the rate of a second foot for eighty acres, measured at his headgate, so long as and at such times as, under the conditions of the

weather and his crops, he has reasonable need therefor, during the entire irrigation season from April 1st to October 31st. Whether the defendant has over-sold water rights, therefore, involves two inquiries. What is the reasonable duty of water, that is, considering the project as a whole, how much water per acre is reasonably necessary for the season; or, putting it in another way, what length of time in the aggregate, during a season, must the farmer receive water at the rate of one-eightieth cubic foot per second per acre, to properly irrigate his land? And, second, how much water, measured at the farmer's headgates, can the system deliver at such times as it is needed during the season? Little, if any, question is raised as to the sufficiency of ditch capacity, and our consideration will therefore be confined to the amount of water available in the streams and the losses necessarily incident to storage and transmission through the main canals.

In determining the reasonable duty of water, we are, of course, not especially concerned with any given tract of land or with exceptional conditions. Our inquiry relates rather to the project as a whole, and with the assumption that the water will be applied under ordinary conditions and according to the usages of good irrigation practice, for the raising of such crops as are suitable to the project and as the farmers will probably grow. From the wide range of "expert" opinion exhibited by the record, it must be manifest that the question is not susceptible to

scientific demonstration. Of late, irrigation cases have been of unusual frequency in this jurisdiction, and generally we have had the same experience. The explanation is to be found in the dearth of dependable data from which to make scientific deductions. Competent observation of irrigation in actual practice has been desultory and unsystematic, and no formulae have been worked out by which the results obtained under the artificial and sometimes ideal conditions of "small-plat" experimentation can be coordinated with the actual conditions of field irrigation. Accordingly, while such evidence is not without its value, it is to be weighed in the light of the data upon which the conclusions rest, and is to be considered together with the experience of the intelligent farmer and the facts of actual irrigation practice. Clearly the conditions upon the project are not favorable to a high duty of water. In point of topography, the lands are comparatively rough, and in many places reefs of rock project, above the surface. As a consequence the surface runoff is necessarily above normal. And there is also greater loss in transmission, owing to the increased length of service ditches on the farm. The soil is of very uneven depth, and as a consequence the unavoidable loss from deep percolation is above normal, and this loss cannot be recovered, because the water escapes through a substratum of fractured rock to unknown depths. On portions of the tract the soil is of fair texture, upon others

it is coarse and sandy. The rainfall is almost negligible, and high winds prevail. It is altogether probable that approximately two-thirds of the acreage will ultimately be devoted to the raising of hay and root crops, requiring larger amounts of water, and one-third to grains, requiring smaller amounts. Under present conditions, three acre feet, delivered at the times when same is needed, is probably sufficient, but not more than sufficient, on the average, for land actually irrigated. It is to be expected that as time goes on service ditches will be improved and land will be leveled and put into more favorable condition for the economic application of water, and naturally the duty of water increases to some extent with cultivations of the land. My conclusion is that the project should have for its proper irrigation permanently an amount of water measured at the farmer's headgates equivalent to two and three-fourths acre feet per acre for the entire area, without deductions for roads or other non-irrigable tracts.

As to the defendant's available water resources, there is a striking variance between the results obtained by a computation which it bases upon certain stream and canal measurements and the actual experience of nine years (1911 to 1919 inclusive), as shown by its books and records. By the computation it reaches the conclusion that in the average year it can deliver to the farmer's headgates 227,-218 acre feet, whereas apparent the highest amount

it has ever delivered in any year is 170,968 acre feet, and the average is 122,817 acre feet; and its reservoir is now empty, as it has been in some of the other years, prior to the close of the irrigation season. True, these latter figures are subject to certain probable corrections, but in no reasonable view could such corrections bring the amount to approximately 227,000 acre feet. If in the most favorable view possible to the plaintiff, we take as a standard the average available supply in ordinary or normal years, exclusive of extreme years, it is impossible in any view I am able to take of the record to find that defendant could more than supply its outstanding contracts, exclusive of those it has acquired through foreclosure proceedings.

The transmission loss in the main canals is thought to be in excess of 35 per cent. and is not likely to fall below that figure. Defendant relies for a 30 per cent. loss upon a computation made by the State Engineer. While this computation is entitled to some weight, it rests upon meager data. Upon the other hand, the actual losses as shown by the records of the company for nine seasons average almost 39 per cent. and while it may be conceded that these records are probably not free from error, they must be deemed to be much more dependable than computations based upon incomplete data gathered in a single investigation, which was far from being exhaustive.

When we come to consider the amount of water available at the canal heads, there is little reason to assume substantial error in the company's records. The records were kept for the purpose of advising the company of the amounts of water taken into the system, and while doubtless such observations are susceptible to error, there is no reason why we should conclude that the error was all one way. The records must be deemed to be reasonably dependable in that respect. They show an average intake for the nine years of a little less than 210,000 acre feet per year. This is exclusive of one source, the amount which, however, is not great. According to these records, if we allow only 30 per cent. for transmission losses, it will be seen that the average annual resources at the farmers' headgates amounted to a little less than 150,000 acre feet. But there is no necessity for finding, and hence I do not attempt to determine, the exact amount of water available for defendant's use. It is sufficient to know that with the duty hereinbefore recognized the supply is and will be insufficient to meet the demands of the outstanding contracts, exclusive of those involved in this suit, and I have no hesitation in so finding. Accordingly, the prayer of the complaint will be granted.

Defendant has suggested that in the contingency of such a holding the decree be not made absolute, but that it be "so worded as to permit future sales of water rights, should subsequent experience prove

it feasible to irrigate additional lands." It is not clear how such a provision could be inserted in a *final* decree, and this is not an interlocutory proceeding. Possibly some provision might be made by which any further sales should be subordinate to outstanding rights. I will give consideration to any definite proposal which the defendant may make in connection with the drafting of the decree. In the present status of the project careful observation of the operation of the system during a normal season should furnish information reasonably definite and conclusive, and possibly the entry of final decree could be deferred, awaiting such a try-out with a provisional injunction in the meantime in harmony with the conclusion herein stated.

I am not sure just what the status of the pleadings is, touching the matter of the amount of water available to the defendant. It is possible that owing to the inability of the plaintiffs sooner to get access to the defendant's records, there is an averment or admission of an available supply in excess of that for which the plaintiffs now contend. If so, leave will be granted to amend the complaint to conform to the proof.

Endorsed: Filed July 19, 1920.

W. D. McREYNOLDS, Clerk.

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(Title of Court and Cause.)

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DECREE

This cause came on to be heard on the 23rd day



of February, 1920, and was by the Court taken under advisement. Thereafter the cause was argued by counsel and thereupon, upon consideration thereof;

IT IS ORDERED, ADJUDGED AND DECREED, that the above named defendants, The Idaho Irrigation Company, Limited, a corporation, The Equitable Trust Company of New York, a corporation, and Lyman Rhoades as trustees for the bondholders of the Idaho Irrigation Company, Limited, and M. R. Kays, as Trustee, and each of them, and their and each of their officers, agents, attorneys, employees and servants be, and they are hereby perpetually enjoined from selling, transferring or otherwise disposing of any of the shares of the capital stock of the Big Wood River Reservoir and Canal Company, Limited, a corporation, which they or any of them held as assets of the said Idaho Irrigation Company, Limited, at the date of the commencement of this suit, to-wit: December 7th, 1917, or which have been acquired by them, or any of them since said date.

Secondly, that the defendant, Idaho Irrigation Company, Limited, its officers, agents, attorneys, employees and servants be and they are hereby perpetually enjoined and restrained from selling, transferring or otherwise disposing of water rights owned, held or controlled by it at the date of the commencement of this suit, or acquired since said date, in the irrigation system constructed by said

defendant, or from issuing contracts for the sale thereof;

Thirdly, that all water rights sold by the defendants, or any of them, in the said irrigation system, and all contracts for the sale of water rights issued by defendants, or any of them, for the irrigation of the following described lands in Gooding County, State of Idaho, to-wit:

*Township 4 South, Range 15 E. B. M.;*

Sec. 31, NE $\frac{1}{4}$  SW $\frac{1}{4}$ .

*Township 5 South, Range 14 E. B. M.;*

Sec. 1, Lot 4; SW $\frac{1}{4}$  SW $\frac{1}{4}$ ; SE $\frac{1}{4}$  SW $\frac{1}{4}$ ;  
NW $\frac{1}{4}$  SE $\frac{1}{4}$ ;

Sec. 13, NW $\frac{1}{4}$  SW $\frac{1}{4}$ ; SE $\frac{1}{4}$  NW $\frac{1}{4}$ ;

Sec. 14, NE $\frac{1}{4}$  SE $\frac{1}{4}$ ;

*Township 5 South, Range 15 E. B. M.;*

Sec. 6, Lot 6 & E $\frac{1}{2}$  SE $\frac{1}{4}$  SE $\frac{1}{4}$ ;

Sec. 9, NE $\frac{1}{4}$  SW $\frac{1}{4}$ ;

Sec. 32, SE $\frac{1}{4}$  NE $\frac{1}{4}$ ;

Sec. 35, NE $\frac{1}{4}$  SW $\frac{1}{4}$ .

*Township 6 South, Range 14 E. B. M.;*

Sec. 10, NE $\frac{1}{4}$  SW $\frac{1}{4}$ ; SE $\frac{1}{4}$  SW $\frac{1}{4}$ ; NW $\frac{1}{4}$ ;  
NW $\frac{1}{4}$ ;

Sec. 22, S $\frac{1}{2}$  NE $\frac{1}{4}$  SE $\frac{1}{4}$ ; NW $\frac{1}{4}$  SE $\frac{1}{4}$ ; SE $\frac{1}{4}$ ;  
SE $\frac{1}{4}$  NW $\frac{1}{4}$ ;

Sec. 23, NW $\frac{1}{4}$  SW $\frac{1}{4}$ .

*Township 6 South, Range 15 E. B. M.;*

Sec. 9, NW $\frac{1}{4}$  SW $\frac{1}{4}$ ; NE $\frac{1}{2}$  SW $\frac{1}{4}$ ;

Sec. 12, NW $\frac{1}{4}$  SW $\frac{1}{4}$ .

Also for the irrigation of the following described

lands situated in Lincoln County, State of Idaho,  
to-wit:

*Township 3 South, Range 18 E. B. M.;*

Sec. 4, Lots 3 & 4; S $\frac{1}{2}$  NE $\frac{1}{4}$ , W $\frac{1}{2}$  SE $\frac{1}{4}$ ;

Sec. 26, NE $\frac{1}{2}$  NE $\frac{1}{4}$ ; NW $\frac{1}{4}$  NE $\frac{1}{4}$ ; SE $\frac{1}{4}$   
NE $\frac{1}{4}$ .

*Township 3 South, Range 19 E. B. M.;*

Sec. 18, NE $\frac{1}{4}$  SE $\frac{1}{4}$ ;

Sec. 19, SW $\frac{1}{4}$  SE $\frac{1}{4}$ ; SE $\frac{1}{4}$  SE $\frac{1}{4}$ ;

Sec. 20, NW $\frac{1}{4}$  SW $\frac{1}{4}$ ;

Sec. 30, Lots 1 & 2; Lots 5 & 6.

*Township 4 South, Range 16 E. B. M.;*

Sec. 32, NW $\frac{1}{4}$  SE $\frac{1}{4}$ ; SE $\frac{1}{4}$  NW $\frac{1}{4}$ ;

Sec. 33, S $\frac{1}{2}$  SE $\frac{1}{4}$ ;

Sec. 34, NE $\frac{1}{4}$  SE $\frac{1}{4}$ ; NE $\frac{1}{4}$  NW $\frac{1}{4}$ ; SW $\frac{1}{4}$   
SE $\frac{1}{4}$ ; NE $\frac{1}{4}$  NE $\frac{1}{4}$ ; S $\frac{1}{2}$  SW $\frac{1}{4}$ ;

Sec. 35, NE $\frac{1}{4}$  NE $\frac{1}{4}$ .

*Township 4 South, Range 17 E. B. M.;*

Sec. 22, SW $\frac{1}{4}$  SW $\frac{1}{4}$ ; NW $\frac{1}{4}$  SW $\frac{1}{4}$ ; W $\frac{1}{2}$   
SE $\frac{1}{4}$ ;

Sec. 27, NW $\frac{1}{4}$  NE $\frac{1}{4}$ ;

Sec. 28, W $\frac{1}{2}$  SE $\frac{1}{4}$ ;

Sec. 29, N $\frac{1}{2}$  SW $\frac{1}{4}$ ;

Sec. 31, NE $\frac{1}{4}$  SW $\frac{1}{4}$ ; Lot 3, Lot 2;

Sec. 32, SW $\frac{1}{4}$  NE $\frac{1}{4}$  NW $\frac{1}{4}$  NE $\frac{1}{4}$ ;

Sec. 33, N $\frac{1}{2}$  NE $\frac{1}{4}$ .

*Township 4 South, Range 18 E. B. M.;*

Sec. 12, SW $\frac{1}{4}$  NE $\frac{1}{4}$ ; SE $\frac{1}{4}$  NE $\frac{1}{4}$ ;

Sec. 32, NE $\frac{1}{4}$  SE $\frac{1}{4}$ ;

Sec. 31, W $\frac{1}{2}$  SW $\frac{1}{4}$ .

*Township 4 South, Range 19 E. B. M.;*

Sec. 1,  $SE\frac{1}{4}$   $NW\frac{1}{4}$ ;  $NW\frac{1}{4}$   $SE\frac{1}{4}$ ;

Sec. 7, Lots 2 & 3;  $NE\frac{1}{4}$   $NE\frac{1}{4}$ ;  $NW\frac{1}{4}$   $NE\frac{1}{4}$ ;  $NE\frac{1}{4}$   $NW\frac{1}{4}$ ;

Sec. 11,  $SW\frac{1}{4}$   $NE\frac{1}{4}$ ;  $SE\frac{1}{4}$   $NE\frac{1}{4}$ ;

Sec. 10,  $NE\frac{1}{4}$   $SW\frac{1}{4}$ ;

Sec. 12,  $W\frac{1}{2}$   $NE\frac{1}{4}$ ;  $NE\frac{1}{4}$   $SW\frac{1}{4}$ ;  $NW\frac{1}{4}$   $SE\frac{1}{4}$ ;

Sec. 15,  $NW\frac{1}{4}$   $SW\frac{1}{4}$ ;

Sec. 17,  $NW\frac{1}{4}$   $NE\frac{1}{4}$ ;  $S\frac{1}{2}$   $SW\frac{1}{4}$ ;

Sec. 18,  $SE\frac{1}{4}$   $SE\frac{1}{4}$ ;  $SW\frac{1}{4}$   $SE\frac{1}{4}$ ;

Sec. 19,  $NW\frac{1}{4}$   $NE\frac{1}{4}$   $SW\frac{1}{4}$   $SE\frac{1}{4}$ ;  $E\frac{1}{2}$   $SW\frac{1}{4}$ ;  $NE\frac{1}{4}$   $NE\frac{1}{4}$ ;

Sec. 20,  $NW\frac{1}{4}$   $NW\frac{1}{4}$ ;  $SE\frac{1}{4}$   $NW\frac{1}{4}$ ;

Sec. 24,  $NW\frac{1}{4}$   $SE\frac{1}{4}$ ;

Sec. 29,  $W\frac{1}{2}$   $SE\frac{1}{4}$ ;  $S\frac{1}{2}$   $SW\frac{1}{4}$ ;

Sec. 30,  $SE\frac{1}{4}$   $NW\frac{1}{4}$   $NW\frac{1}{4}$   $NE\frac{1}{4}$ ;

Sec. 31,  $NW\frac{1}{4}$   $NE\frac{1}{4}$ ;  $SW\frac{1}{4}$   $NE\frac{1}{4}$ ;  $NE\frac{1}{4}$   $NW\frac{1}{4}$ ;

Sec. 32,  $NW\frac{1}{4}$   $NE\frac{1}{4}$ ;  $N\frac{1}{2}$   $NW\frac{1}{4}$ ;  $SE\frac{1}{4}$   $NW\frac{1}{4}$ ;  $SW\frac{1}{4}$   $NE\frac{1}{4}$ .

*Township 4 South, Range 20 E. B. M.;*

Sec. 6,  $SE\frac{1}{4}$   $SW\frac{1}{4}$ ; Lot 4;

Sec. 18,  $SE\frac{1}{4}$   $SW\frac{1}{4}$ ;  $NW\frac{1}{4}$   $SE\frac{1}{4}$ ;

Sec. 19,  $SE\frac{1}{4}$   $NW\frac{1}{4}$ .

*Township 5 South, Range 16 E. B. M.;*

Sec. 2,  $SW\frac{1}{4}$   $NE\frac{1}{4}$ ;  $NW\frac{1}{4}$   $SE\frac{1}{4}$ ;

Sec. 3,  $SE\frac{1}{4}$   $SW\frac{1}{4}$ ;

Sec. 5,  $S\frac{1}{2}$   $SE\frac{1}{4}$ ;  $SW\frac{1}{4}$   $NE\frac{1}{4}$ ; Lots 1 & 2.

*Township 5 South, Range 17 E. B. M.;*

Sec. 1, Lots 3 & 4;  $SW\frac{1}{4}$   $NW\frac{1}{4}$ ;

Sec. 4,  $NW\frac{1}{4}$   $SE\frac{1}{4}$ ;

Sec. 5, NE $\frac{1}{4}$  SE $\frac{1}{4}$ ;

Sec. 9, E $\frac{1}{2}$  NE $\frac{1}{4}$ ;

Sec. 11, NE $\frac{1}{4}$  SE $\frac{1}{4}$ ; W $\frac{1}{2}$  SE $\frac{1}{4}$ ; W $\frac{1}{2}$  SW $\frac{1}{4}$ ;

Sec. 12, NE $\frac{1}{4}$  NE $\frac{1}{4}$ ;

Sec. 14, NW $\frac{1}{4}$  NE $\frac{1}{4}$ ;

*Township 5 South, Range 18 E. B. M.;*

Sec. 6, Lot 7;

Sec. 7, N $\frac{1}{2}$  of Lot 2;

Sec. 33, SE $\frac{1}{4}$  SE $\frac{1}{4}$ ;

Sec. 34, NW $\frac{1}{4}$  SE $\frac{1}{4}$ ; NE $\frac{1}{4}$  SW $\frac{1}{4}$ ; SE $\frac{1}{4}$  SE $\frac{1}{4}$ ;

*Township 6 South, Range 18 E. B. M.;*

Sec. 3, SW $\frac{1}{4}$  NE $\frac{1}{4}$ ; SE $\frac{1}{4}$  NW $\frac{1}{4}$ ; Lot 4;

Sec. 4, SE $\frac{1}{4}$  NW $\frac{1}{4}$ ; Lot 4;

Sec. 5, NE $\frac{1}{4}$  SW $\frac{1}{4}$ ; SE $\frac{1}{4}$  SW $\frac{1}{4}$ ;

Sec. 6, SE $\frac{1}{4}$  SE $\frac{1}{4}$ ; Lots 1, 2 & 3; SW $\frac{1}{4}$  NE $\frac{1}{4}$ ; SE $\frac{1}{4}$  NE $\frac{1}{4}$ ;

Sec. 7, Lot 1;

Sec. 8, NE $\frac{1}{4}$  NW $\frac{1}{4}$ ; E $\frac{1}{2}$  NE $\frac{1}{4}$ ;

Sec. 10, N $\frac{1}{2}$  SW $\frac{1}{4}$ ;

Sec. 11, SE $\frac{1}{4}$  SW $\frac{1}{4}$ ; NE $\frac{1}{4}$  SE $\frac{1}{4}$ ; SE $\frac{1}{4}$  SE $\frac{1}{4}$ ;

Sec. 12, E $\frac{1}{2}$  SW $\frac{1}{4}$ ; S $\frac{1}{2}$  NE $\frac{1}{4}$ ; S $\frac{1}{2}$  NW $\frac{1}{4}$ ; W $\frac{1}{2}$  SW $\frac{1}{4}$ ; .... SE $\frac{1}{4}$ ;

Sec. 13, SW $\frac{1}{4}$  SW $\frac{1}{4}$ ; SE $\frac{1}{4}$  SW $\frac{1}{4}$ ; SW $\frac{1}{4}$  SE $\frac{1}{4}$ ;

Sec. 14, SE $\frac{1}{4}$  SE $\frac{1}{4}$ ; NE $\frac{1}{4}$  NW $\frac{1}{4}$ ;

Sec. 15, NE $\frac{1}{4}$  SE $\frac{1}{4}$ ; NW $\frac{1}{4}$  SE $\frac{1}{4}$ ; SE $\frac{1}{4}$  NE $\frac{1}{4}$ ; NE $\frac{1}{4}$  NE $\frac{1}{4}$ ; SE $\frac{1}{4}$  SW $\frac{1}{4}$ ; SW $\frac{1}{4}$  SE $\frac{1}{4}$ ;

Sec. 17, SW $\frac{1}{4}$  NE $\frac{1}{4}$ ;

Sec. 21 W $\frac{1}{2}$  SE $\frac{1}{4}$ ; E $\frac{1}{2}$  NW $\frac{1}{4}$ ;

Sec. 22, NW $\frac{1}{4}$  NE $\frac{1}{4}$ ; N $\frac{1}{2}$  SW $\frac{1}{4}$ ;

Sec. 23, S $\frac{1}{2}$  SW $\frac{1}{4}$ ;

Sec. 24, NW $\frac{1}{4}$  SE $\frac{1}{4}$ ; NE $\frac{1}{4}$  SW $\frac{1}{4}$ ; SW $\frac{1}{4}$  NW $\frac{1}{4}$ ;

Sec. 25, E $\frac{1}{2}$  SW $\frac{1}{4}$ ; SW $\frac{1}{4}$  SE $\frac{1}{4}$ ; SW $\frac{1}{4}$  NE $\frac{1}{4}$ ; NW $\frac{1}{4}$  NE $\frac{1}{4}$ ; NW $\frac{1}{4}$  SE $\frac{1}{4}$ ; SW $\frac{1}{4}$  SW $\frac{1}{4}$ ; S $\frac{1}{2}$  NW $\frac{1}{4}$ ;

Sec. 26, SE $\frac{1}{4}$  NW $\frac{1}{4}$ ; NE $\frac{1}{4}$  NW $\frac{1}{4}$ ;

Sec. 27, SE $\frac{1}{4}$  NE $\frac{1}{4}$ .

*Township 6 South, Range 19 E. B. M.;*

Sec. 3, NE $\frac{1}{4}$  SE $\frac{1}{4}$ ; SW $\frac{1}{4}$  SW $\frac{1}{4}$ ;

Sec. 7, NE $\frac{1}{4}$  SE $\frac{1}{4}$ ; Lots 5, 6, 10, 11 & 12;

Sec. 8, SW $\frac{1}{4}$  SW $\frac{1}{4}$ ; SW $\frac{1}{4}$  SE $\frac{1}{4}$ ; SE $\frac{1}{4}$  NE $\frac{1}{4}$ ; SE $\frac{1}{4}$  SW $\frac{1}{4}$ ;

Sec. 9, NW $\frac{1}{4}$  SE $\frac{1}{4}$ ; NW $\frac{1}{4}$  SW $\frac{1}{4}$ ; SW $\frac{1}{4}$  SW $\frac{1}{4}$ ;

Sec. 10, SW $\frac{1}{4}$  SE $\frac{1}{4}$ ; SE $\frac{1}{4}$  SE $\frac{1}{4}$ ;

Sec. 11, SW $\frac{1}{4}$  SW $\frac{1}{4}$ ; SW $\frac{1}{4}$  NW $\frac{1}{4}$ ; NW $\frac{1}{4}$  NW $\frac{1}{4}$ ;

Sec. 17, SW $\frac{1}{4}$  NW $\frac{1}{4}$ ;

Sec. 18, SW $\frac{1}{4}$  NE $\frac{1}{4}$ ; Lots 3, 4, 6 & 7;

Sec. 19, Lots 1 & 10;

Sec. 20, N $\frac{1}{2}$  NE $\frac{1}{4}$ ; SW $\frac{1}{4}$  NW $\frac{1}{4}$ ;

Sec. 21, S $\frac{1}{2}$  NW $\frac{1}{4}$ ; W $\frac{1}{2}$  NE $\frac{1}{4}$ ;

Sec. 22, NE $\frac{1}{4}$  NE $\frac{1}{4}$ ; NE $\frac{1}{4}$  SE $\frac{1}{4}$ ; S $\frac{1}{2}$  SE $\frac{1}{4}$ ; N $\frac{1}{2}$  NW $\frac{1}{4}$ ; SE $\frac{1}{4}$  NW $\frac{1}{4}$  SW $\frac{1}{2}$  NE $\frac{1}{4}$ ;

Sec. 22, SE $\frac{1}{4}$  NE $\frac{1}{4}$ ; S $\frac{1}{2}$  SW $\frac{1}{4}$ ;

Sec. 23,  $E\frac{1}{2}$   $SW\frac{1}{4}$ ;  $W\frac{1}{2}$   $SW\frac{1}{4}$ ;  $SW\frac{1}{4}$   $NW\frac{1}{4}$ ;

Sec. 27,  $N\frac{1}{2}$   $NE\frac{1}{4}$ ;  $N\frac{1}{2}$   $NW\frac{1}{4}$ ;

Sec. 28,  $N\frac{1}{2}$   $SW\frac{1}{4}$ ;

Sec. 29,  $NE\frac{1}{4}$   $SE\frac{1}{4}$ ;  $NE\frac{1}{4}$   $NE\frac{1}{4}$ ;  $SE\frac{1}{4}$   $NE\frac{1}{4}$ ;  $SW\frac{1}{4}$   $NE\frac{1}{4}$ ;

Sec. 30,  $NW\frac{1}{4}$   $NE\frac{1}{4}$ ;  $NE\frac{1}{4}$   $NE\frac{1}{4}$ ;  $W\frac{1}{2}$   $NE\frac{1}{4}$ ;

Sec. 31, Lots 7 & 12;  $NW\frac{1}{4}$   $NE\frac{1}{4}$ ;

Sec. 32,  $NW\frac{1}{4}$   $SW\frac{1}{4}$ ;

Sec. 33,  $SW\frac{1}{4}$   $SE\frac{1}{4}$ ;  $NW\frac{1}{4}$   $SE\frac{1}{4}$ ;

*Township 7 South, Range 18 E. B. M.;*

Sec. 1,  $SE\frac{1}{4}$   $SW\frac{1}{4}$ ;  $NE\frac{1}{4}$   $SW\frac{1}{4}$ ;  $SE\frac{1}{4}$   $NW\frac{1}{4}$ ;

*Township 7 South, Range 19 E. B. M.;*

Sec. 2,  $SE\frac{1}{4}$   $NW\frac{1}{4}$ ;

Sec. 3,  $SW\frac{1}{4}$   $NW\frac{1}{4}$ ; Lots 3 & 4;  $SW\frac{1}{4}$   $NE\frac{1}{4}$ ;  $SE\frac{1}{4}$   $NW\frac{1}{4}$ ;  $SE\frac{1}{4}$   $SE\frac{1}{4}$  be,

and the same hereby are decreed of no effect, and all shares of the capital stock of the said Big Wood River Reservoir and Canal Company, Limited, issued in connection with such sales, or the issuance of such contracts, be and the same are hereby decreed to be of no effect.

Fourthly: Provided, That it shall not be considered a violation of the injunction herein issued if the Idaho Irrigation Company transfers shares of stock appurtenant to land now entitled to receive water, to any land described in this decree, such transfer to be made upon a basis of acre for

acre and share for share, and the total burden on the system being not thereby increased.

Fifthly: Provided further that this decree shall not be deemed prejudicially to affect the right or claim of any person not a party hereto, based upon a valid contract entered into in good faith prior to December 7, 1917, and in force upon that date.

Provided further that if and as soon as the following named entrymen,—J. McClure, E. G. Egbert, P. Downey, and C. A. Millhouse,—shall be able to reinstate their entries before the State Land Board, covering the following described land, SE $\frac{1}{4}$  SE $\frac{1}{4}$  34-5-18; Lot 4, 3-6-18; S $\frac{1}{2}$  SW $\frac{1}{4}$  22-6-19, SE $\frac{1}{4}$  NE $\frac{1}{4}$ , 32-4-18, their contracts shall be deemed to be valid and of the same standing as any other contract issued before the filing of the suit.

Sixthly: That plaintiffs have their costs of suit herein, taxed at \$398.25.

Dated at Boise, Idaho, this 20th day of December, 1920.

FRANK S. DIETRICH,

*Judge.*

Endorsed: Filed Dec. 20, 1920.

W. D. McREYNOLDS, Clerk.

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(Title of Court and Cause.)

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#### STIPULATION.

It is hereby stipulated and agreed by and between the parties hereto that the following de-



scribed lands and water rights shall be eliminated from the decree of the Court, dated Dec. 20th, 1920, to-wit: The Southeast Quarter of the Northwest Quarter ( $SE\frac{1}{4} NW\frac{1}{4}$ ) and the Southwest Quarter of the Northeast Quarter ( $SW\frac{1}{4} NE\frac{1}{4}$ ), both of Section 32, Twp. Four, South of Range 19 E. B. M. in Lincoln County, Idaho, together with the water right appurtenant thereto, being 74 shares of the capital stock of the Big Wood River Reservoir and Canal Company, and in lieu thereof the decree as modified shall include the Southwest Quarter of Section 30, Twp. 4 S. Range 17 E. B. M., in Lincoln County, Idaho, and the 162.10 shares of stock appurtenant thereto which last described land and water right is now claimed to be owned by the Idaho Irrigation Co., Ltd.

This stipulation is signed by defendant Company upon the express understanding and reservation that it shall not in other matters operate as an estoppel in any manner against defendant Company or as to any cleaims now being or hereafter to be asserted by it nor as to an acquiescence in the validity of the decree mentioned but is signed by said Company as a matter of convenience to and for the holder of said lands mentioned.

IDAHO IRRIGATION COMPANY,  
LIMITED,

By MURRAY BROSSMAN,

*Vice President.*

W. G. BISSELL,

*Attorney for Plaintiff.*

Endorsed: Filed May 7, 1921.

W. D. McREYNOLDS, Clerk.

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(Title of Court and Cause.)

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STIPULATION FOR AMENDMENT  
OF DECREE.

IT IS HEREBY STIPULATED and AGREED by and between the parties above named, through their respective solicitors that the decree made and entered in this cause on December 20th, 1920, may be amended in the following particulars, to-wit:

(a) There shall be eliminated from the lands described in said decree as not entitled to water from said irrigation system the Southwest Quarter of the Northeast Quarter (SW $\frac{1}{4}$  NE $\frac{1}{4}$ ) and the Northwest Quarter of the Northeast Quarter (NW $\frac{1}{4}$  NE $\frac{1}{4}$ ) of Section 25, Township 6 South, Range 18 East B. M., said land having been included in said original decree by a mistake, and said land has appurtenant thereto seventy-seven (77) shares of stock in the Big Wood River Reservoir and Canal Company, Limited.

(b) There shall be eliminated from the lands described in said decree as not entitled to water from the irrigation system therein described, Lot 10 of Section 19, Township 6 South, Range 19 East B. M., said land having appurtenant thereto twenty-seven (27) shares of stock of the Big Wood River

Reservoir and Canal Company, Limited, and is entitled to water from said irrigation system in accordance therewith.

It is agreed and understood that this stipulation is signed on behalf of the defendants upon the express understanding and reservation that it shall not operate as an estoppel in any manner against said defendants contesting the validity of said decree and the decision of the Court in this cause.

Dated this 7th day of May, 1921.

W. G. BISSELL,

*Solicitor for Plaintiffs,*

WALTERS & HODGIN,

RICHARDS & HAGA,

*Solicitors for Defendants.*

Endorsed: Filed May 7, 1921.

W. D. McREYNOLDS, Clerk.

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(Title of Court and Cause.)

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#### AMENDMENT TO DECREE.

This cause came on to be heard on the 23rd day of February, 1920, and was by the Court taken under advisement; thereafter the said cause was argued by counsel, and thereupon after consideration thereof, the Court duly made and entered its decree as of date of December 20th, 1920.

Thereafter and on the 19th day of March, 1921, the amended complaint in intervention of Frank T. Disney, et al., was filed, and thereafter presented to the Court, whereupon the said plaintiffs by an-

swer duly filed on the 30th day of March, 1921, admitted the allegations of subparagraphs A, E, G, DD and EE of paragraph three of said amended complaint in intervention; in which said answer said plaintiffs also alleged that the following described lands, to-wit: NE $\frac{1}{4}$  SE $\frac{1}{4}$ , 11-5-17; S $\frac{1}{2}$  NW $\frac{1}{4}$ , 12-6-18; NE $\frac{1}{4}$  SW $\frac{1}{4}$ , 35-5-15, and East 15 $\frac{1}{2}$  acres of SE $\frac{1}{4}$  SW $\frac{1}{4}$ , 1-5-14, had been erroneously included in said decree for the reason that such tracts of land had been purchased in good faith prior to the filing of the suit and lis pendens herein, which fact, however, did not appear from the records.

And at the same time plaintiffs filed their answer to subparagraphs K and Z of said paragraph three, upon which said amended complaint in intervention, as to the two subparagraphs aforesaid, and the answer filed thereto, this cause came duly on for hearing on the 26th day of April, 1921; whereupon the matters and things alleged in said subparagraph Z of paragraph three aforesaid being disposed of by stipulation on file, trial was had upon the issues joined under said subparagraph K of paragraph three of said complaint in intervention, and the answer thereto; and the Court being advised in the premises;

IT IS ORDERED, ADJUDGED AND DECREED, That the decree made and entered on December 20th, 1920, be, and the same hereby is, amended in the following respects, to-wit: That

the following lands be, and the same hereby are, stricken from said original decree, to-wit:

|                                                                                | Sec. | Tp. (so.) | Rg. (E. B. M.) |
|--------------------------------------------------------------------------------|------|-----------|----------------|
| Lots 1 and 2.....                                                              | 30   | 3         | 19             |
| W $\frac{1}{2}$ SW $\frac{1}{4}$ .....                                         | 11   | 5         | 17             |
| N $\frac{1}{2}$ SW $\frac{1}{4}$ .....                                         | 9    | 6         | 15             |
| S $\frac{1}{2}$ SW $\frac{1}{4}$ & SW $\frac{1}{4}$ SE $\frac{1}{4}$           | 13   | 6         | 18             |
| E $\frac{1}{2}$ SW $\frac{1}{4}$ .....                                         | 10   | 6         | 14             |
| NE $\frac{1}{4}$ SE $\frac{1}{4}$ .....                                        | 11   | 5         | 17             |
| S $\frac{1}{2}$ NW $\frac{1}{4}$ .....                                         | 12   | 6         | 18             |
| NE $\frac{1}{4}$ SW $\frac{1}{4}$ .....                                        | 35   | 5         | 15             |
| East 15 $\frac{1}{2}$ acres SE $\frac{1}{4}$<br>SW $\frac{1}{4}$ .....         | 1    | 5         | 14             |
| SE $\frac{1}{4}$ NW $\frac{1}{4}$ & SW $\frac{1}{4}$<br>NE $\frac{1}{4}$ ..... | 32   | 4         | 19             |

and that in lieu of said last described tract, to-wit, SE $\frac{1}{4}$  NW $\frac{1}{4}$  and SW $\frac{1}{4}$  NE $\frac{1}{4}$  of Sec. 32, Tp. 4 S., R. 19 E. B. M., there be inserted in said decree the SW $\frac{1}{4}$  of Sec. 30, Tp. 4 S., R. 17, E. B. M.

It is further ordered and decreed that the land described in subparagraph K of paragraph three of said amended complaint in intervention, by the intervenor Harley Grewell, to-wit, SW $\frac{1}{4}$ , Sec. 12, Tp. 6 S., R. 18, E. B. M., be stricken from said decree.

That in accordance with the stipulation of counsel on file with the Clerk the following described lands shall be stricken from said original decree, to-wit: the Southwest Quarter of the Northeast Quarter (SW $\frac{1}{4}$  NE $\frac{1}{4}$ ) and the Northwest Quarter

of the Northeast Quarter (NW $\frac{1}{4}$  NE $\frac{1}{4}$ ) of Section 25, Township 6 South, Range 18 East B. M.; and Lot 10 of Section 19, Township 6 South, Range 19 East B. M. No costs are awarded.

Dated at Boise, Idaho, this 7th day of May, 1921.

FRANK S. DIETRICH,

*District Judge.*

Endorsed: Filed May 7, 1921.

W. D. McREYNOLDS, Clerk.

(Title of Court and Cause.)

AMENDED COMPLAINT IN INTERVENTION OF FRANK T. DISNEY, et al.

Frank T. Disney, Owen J. Brennan, J. W. Stoddard, Byron McKinstry, Dave Engle, W. B. Joy, John F. Engle, Mada Adams, L. H. Dysart, H. J. Leyson, George W. Wedgewood, Harley Grewell, E. L. Tate, Otto Schild, W. S. Smith, M. R. Kays, E. G. Molsee, T. M. Osborn, Frank L. Thomas, Wm. Roseberry, J. G. Wilmoth, W. D. Fales, and R. W. Houston, Mrs. Monnie Clinger, Steve Ballard, Arthur W. Garrett, George W. Bowman, A. L. Fletcher, George F. Gorow, Bert Wyant and Lillie Dale Wyant, A. C. Kerschner, Erle Whipkey, H. D. Edwards, C. J. Shafer, A. H. Bower, Elbert Sherman, Z. T. Spellman, J. H. Scott, Dionysius, B. Kountanius,

by leave of Court first had and obtained, file this their Amended Complaint in Intervention, and say:

## 1.

That heretofore, to-wit: on or about the 7th day of December, 1917, the said Fred W. Gooding, Novinger & Darrah Sheep Company, Ltd., a corporation, T. B. Jones, J. H. Culbertson, M. W. Sine, W. L. Biggs, Louis Johnson, C. B. Hess and Frank R. Gooding, commenced an action in the District Court of the Fourth Judicial District of the State of Idaho, in and for Lincoln County, against the Idaho Irrigation Company, Ltd.; a corporation, the Equitable Trust Company of New York, a corporation, and Lyman Rhoades as trustee for the bondholders of the Idaho Irrigation Company, Ltd., and M. R. Kays, as trustee, which said cause was thereafter removed to this Court and is still pending in this Court and known as equity case No. 612; that in and by said cause the plaintiffs therein sought to obtain a permanent injunction against the defendants therein named from selling and disposing of or transferring upon the books of the Idaho Irrigation Company, Ltd., any of the shares of the capital stock of the Big Wood River Reservoir & Canal Company, Ltd., which said Idaho Irrigation Company then held for the benefit of the bondholders of said corporation, and further that said Idaho Irrigation Company, Ltd., its agents and officers, be permanently enjoined and restrained from issuing any more or further contracts for the sale of water rights in the irrigation system constructed by said company under a contract with

the State of Idaho, for what is commonly known as the Big Wood River Irrigation Project. For a full and particular statement of the matters set up in said bill, your intervenors pray leave to refer to said bill on file with the clerk of this Court with the same force and effect as if the matters therein set forth were herein set out at large.

2.

That thereafter the plaintiffs in said suit filed with the County Recorder of Lincoln County, Idaho, on the 7th day of December, 1917, and with the County Recorder of Gooding County, Idaho, on the 11th day of December, 1917, what they denominated or called a Lis Pendens, a copy of which is attached hereto as Exhibit "A", and made a part hereof, and hereby referred to for a full and complete statement of the contents, terms and provisions hereof with the same force and effect as if said instrument were here set out at large. These intervenors further allege and show that they had not, nor had any of them, any actual knowledge of the contents of said instrument or of the nature or scope of said suit as determined by the decree entered in this cause, but these intervenors at all times understood and assumed that said suit was for the purpose of enjoining the defendants from selling any of the unissued stock of the Big Wood River Reservoir & Canal Company, and these intervenors did not know or understand that said suit involved the cancellation of any stock theretofore issued by



said Big Wood River Reservoir & Canal Company and made appurtenant to the land of these intervenors, or the cancellation of any water rights appurtenant to the lands of these intervenors. And your intervenors further allege and show that no preliminary or temporary injunction or restraining order was issued in said cause enjoining or restraining the defendants from selling any of the shares of stock, water rights, or lands owned or held by said defendants; and these intervenors in good faith believe that the defendants were compelled under the law and under the contract with the State of Idaho, for the construction of said irrigation system to sell shares or interests in said irrigation system and stock in said Big Wood River Company, as required by said State Contract and according to the terms thereof, to all persons who desired to enter Carey Act lands in said segregation and whose entries were accepted and approved by the State Board of Land Commissioners of said State.

These intervenors further allege and show that lands and water rights purchased by them, or any of them, after the commencement of said suit were not owned at the time of the commencement of such suit, or at any time thereafter, by the defendant Idaho Irrigation Company, Limited, but such lands and appurtenant water rights were during all of said times actually owned by the defendant Equitable Trust Company of New York and Lyman

Rhoades as Trustees for the owners of the bonds of said Idaho Irrigation Company, Limited, issued under the deed of trust referred to in the bill of complaint in said cause, or such lands were held by M. R. Kays as Trustee for such bondholders, but only as the agent or representative of said Equitable Trust Company and Lyman Rhoades, Trustees, under said deed of trust, and the water rights appurtenant to said lands were evidenced by contracts issued by said Idaho Irrigation Company, Limited, and deposited under said trust deed, but upon which default had been made and the lien of such contracts foreclosed at the instance and request of such Trustees for the benefit of such bondholders, and the title to said lands had been acquired either through the foreclosure of such contracts or the conveyance of such land and water rights to such trustees or said Idaho Irrigation Company, in satisfaction of said lien.

3.

That your intervenors are now advised and informed that such proceedings were had in said cause that on or about the 20th day of December, 1920, a final decree was entered therein by this honorable Court; that such decree seriously affects the rights of your intervenors, although they were not parties to said suit; that, among other things, said decree purports to cancel and annul all contracts for the sale of water rights issued by the defendants, or any of them, for the lands herein-

after described and other lands aggregating as your intervenors are informed and believe and so allege the fact to be, approximately 3,000 acres owned by various and divers persons who were not parties to said suit and who are situated substantially similar to these intervenors.

4.

That if said decree be carried out according to its terms, your intervenors are informed and believe, and so allege the fact to be, that the said Idaho Irrigation Company cannot and will not be permitted to deliver any water from said irrigation system for the irrigation of the lands described in said decree as the lands for which the water rights have been cancelled and annulled, and your intervenors are further informed and believe, and so allege the fact to be, that the Big Wood River Reservoir & Canal Company, Ltd., being the operating company in charge of the distribution of water from said irrigation system, will not hereafter deliver any water to said lands, and by reason thereof your intervenors and others similarly situated will be wholly deprived of the water to which they are entitled under the contracts of purchase made under the laws of the State of Idaho, and pursuant to the contract between the Idaho Irrigation Company, Ltd., and the State of Idaho for the construction of said irrigation system and the sale of water rights therein; that if your intervenors be deprived of water from said irrigation system, as provided in

said decree, they will suffer great and irreparable injury and their farms will become absolutely valueless, as said lands are arid in character and cannot grow profitable crops of grains or grasses without water for the irrigation thereof, and such water cannot be obtained from any other source, and these intervenors will be deprived of water rights acquired pursuant to the laws of the State of Idaho and under contracts of purchase made for a valuable consideration; that water has been used on said lands for many years, and has become appurtenant thereto under the constitution and laws of the State of Idaho, as these intervenors are informed and believe and so allege the fact to be.

## 5.

That these intervenors acquired their respective tracts of land substantially in the manner following, and such land has been cultivated and improved substantially as follows:

(a) That Byron McKinstry purchased from the Idaho Irrigation Company, on or about the 25th day of September, 1917, lots one and two of section 30, township 3, S. R. 19, E. B. M., and immediately went into possession thereof, and has ever since been and now is, in possession of said premises, residing therein, and has made valuable and extensive improvements thereon consisting of a house, barns, sheds, cistern and fences, of the reasonable value of \$1200.00, and has cultivated and irrigated

about fifty acres of said land planted to clover, pasture, garden, and wheat,—which said land has been cultivated, irrigated and farmed for a greater period than six years, last past, with water obtained from the said Idaho Irrigation System. That said premises were entered under the Carey Act, pursuant to the laws of the State of Idaho, and the United States, and patent therefor has been issued from the United States to the State of Idaho, prior to December 7th, 1917, and a deed was duly issued therefor to the predecessors in interest of the said McKinstry; that said land constitutes a valuable farm, and the contract entered into between the original entryman for the purchase of water rights and the Idaho Irrigation Company, to one Wm. L. Turner, predecessor in interest to the said McKinstry, and so issued on January 29th, 1909, has never been cancelled, annulled, or set aside, except as said decree purports to cancel and annul the same.

(b) That Owen J. Brennan, and Frank T. Disney, purchased from the Idaho Irrigation Company, on or about the first day of January, 1918, the west half of the southeast quarter ( $W\frac{1}{2} SE\frac{1}{4}$ ), Section 11, Township 5, S. R. 17, E. B. M., and immediately went into possession thereof, and now are, and ever since have been in possession thereof; that said premises constitute a valuable and highly improved farm there having been expended, several thousand dollars in dwelling house, barns, shed, well, wind-

mill, fences, and other improvements, and said land has been irrigated, cultivated, and improved since the spring of 1913, and has been planted to alfalfa, grain, and other crops.—That said land has been irrigated from the Idaho Irrigation Company project under a contract duly entered, and that on or about the first day of February, 1913, by the predecessors in interest of the said Brennan and Disney. That said premises were entered under the Carey Act, pursuant to the laws of the State of Idaho, and the United States, on or about the first day of February, 1913, and patent therefor duly issued from the United States to the State of Idaho, prior to December 7th, 1917, and a deed was duly issued therefor to the predecessors in interest of the said Brennan and Disney; that the contract for a water right hereinbefore referred to and entered into by his predecessor in interest of the said Brennan and Disney on or about the first day of February, 1913, has never been cancelled or annulled or set aside, except as said decree purports to cancel and annul the same.

(c) That Frank T. Disney purchased from the Idaho Irrigation Company, on or about December 1st, 1918, the Northwest Quarter of the Northeast Quarter (NW $\frac{1}{4}$  NE $\frac{1}{4}$ ), Section 14, Township 5, S. R. 17, E. B. M., and immediately went into possession thereof, and has ever since been and now is in possession of said premises; that said land is in a high state of cultivation, and has valuable im-

provements thereon, which said land has been cultivated, and farmed with water procured from the Idaho Irrigation Company for a greater period than six years last past. That said premises were entered under the Carey Act, pursuant to the laws of the State of Idaho, and the United States, and patent therefor duly issued from the United States to the said State of Idaho, prior to December 7th, 1917, and a deed was duly issued therefor to the predecessors in interest of the said Disney; that said land constitutes a valuable farm, and the contract entered into between the original entryman for the purchase of water rights from the Idaho Irrigation Company to one Arthur L. Lamkin, predecessor in interest of the said Disney, and so issued on or about November 1st, 1912, has never been cancelled, annulled, or set aside, except as said decree purports to cancel and annul the same.

(d) That L. H. Dysart is the owner of a contract of purchase from the Idaho Irrigation Company, Ltd., made on or about the first day of June, 1918, for the Southeast Quarter of the Northwest Quarter, and the East Half of the Southwest Quarter ( $SE\frac{1}{4}$   $NW\frac{1}{4}$  and  $E\frac{1}{2}$   $SW\frac{1}{4}$ ) Section 1, Township 7, S. R. 18, E. B. M., and said Dysart has been in possession of said premises ever since, or about the date said contract was entered into, and now resides thereon and has made valuable and extensive improvements on said lands and has cultivated, irrigated, and farmed the same thru himself and his predecessors

in interest for several years last past; that said premises have for more than six years last past been supplied with water from said irrigation system, under the form of contract prescribed by the State of Idaho; that said premises were entered under the Carey Act, and title thereto obtained by reason of compliance with the terms of said act prior to December 7th, 1917; that patent thereto duly issued from the United States to the State of Idaho, prior to December 7th, 1917, and a deed was duly issued therefor to the predecessors in interest of the said Dysart; that said land constitutes a valuable farm and the contract for the purchase of a water right from the Idaho Irrigation Company made prior to December 7th, 1917, has never been cancelled, annulled, or set aside, except as said decree purports to cancel and annul the same.

(e) That J. W. Stoddard purchased on or about the 10th day of November, 1916, from the Idaho Irrigation Company, the west half of the southwest quarter ( $W\frac{1}{2}$   $SW\frac{1}{4}$ ), Section 11, Township 5, S. R. 19, E. B. M.; that said premises constitute a valuable farm, occupied by the said Stoddard, who has been in possession thereof since on or about the said 10th day of November, 1916; that said lands were entered under the Carey Act, several years prior to the purchase of said premises by said Stoddard by one having the qualifications to enter said land and title thereto was obtained by reason of compliance with the terms of said act and said



lands have been irrigated for more than six years last past from said irrigation system; that patent duly issued from the United States to the State of Idaho, prior to December 7th, 1917, and a deed was duly issued therefor to the predecessors in interest of the said Stoddard; that said land constitutes a valuable farm, and the original water contract entered into by the original entryman has never been cancelled, annulled, or set aside, except as said decree purports to cancel and annul the same.

(f) That said H. J. Leyson and George W. Wedgewood, are the owners of the Southeast Quarter of the Northwest Quarter (SE $\frac{1}{4}$  NW $\frac{1}{4}$ ) Section 13, Township 5, S. R. 14, E. B. M.; that said premises were originally entered under the Carey Act, about the fifth day of February, 1909, by a predecessor in interest of the said Leyson and Wedgewood, and a water contract was issued therefor by the Idaho Irrigation Company in accordance with the terms of the contract between said company and the State of Idaho, and all laws pertaining thereto, the same being water contract No. 386; that the entryman or those claiming under him, having failed to make payments in accordance with the terms of said water contract the Idaho Irrigation Company or the trustees as herein recited, foreclosed its lien against said premises and the same were thereafter sold by the sheriff in accordance with the laws of the State of Idaho, for the fore-

closure of Carey Act Liens, and on or about October 26th, 1917, a sheriff's certificate of sale was issued to Lyman Rhoades and the Equitable Trust Company, as trustee, but thereafter and on or about October 24th, 1918, said Leyson and Wedgewood, having all of the qualifications prescribed by the laws pertaining thereto, and in accordance with the statutes of the State of Idaho in such cases made and provided, redeemed from said sheriff's sale and thereby secured an assignment of said certificate of sale and on or about September 30th, 1918, the sheriff deeded said premises to said Leyson and Wedgewood; that said premises were entered under the Carey Act pursuant to the laws of the State of Idaho and the United States, several years prior to December 7th, 1917, and patent therefor duly issued from the United States to the State of Idaho prior to December 7th, 1917, and a deed was duly issued therefor to the predecessors in interest of the said Leyson and Wedgewood; that said land constitutes a valuable farm upon which improvements have been placed of the value of several thousand dollars, and the contract entered into for a water right from the Idaho Irrigation Company and duly issued to a predecessor in interest of said Leyson and Wedgewood has never been cancelled and annulled or set aside except as said decree purports to cancel and annul the same.

(g) That Mada Adams is the owner of the North Half of the Southwest Quarter ( $N\frac{1}{2}$  SW $\frac{1}{4}$ ) Sec-

tion 9, Township 6, S. R. 15, E. B. M.; that said premises were entered under the Carey Act by one A. A. Garlock on or about April 7th, 1909, who at the same time purchased from the Idaho Irrigation Company a water right therefor, under the form of contract prescribed by the State Board of Land Commissioners; that default having been made in the payment of the purchase price of the water right, the Idaho Irrigation Company filed a suit for the foreclosure of its Carey Act Lien, and on or about October 26th, 1917, a sheriff's certificate of sale was issued under a decree of foreclosure to said Lyman Rhoades, trustee and thereafter or about February 25th, 1918, one J. S. Shotwell, who had succeeded to the right, title and interest of the defendant in said foreclosure suit, redeemed said premises in accordance with the laws of the State of Idaho, and thereupon said Lyman Rhoades, trustee, assigned to said Shotwell his sheriff's certificate of sale; that said premises were entered under the Carey Act, pursuant to the laws of the State of Idaho, and the United States, and water contract from the Idaho Irrigation Company duly issued therefor, long prior to December 7th, 1917; that patent therefor duly issued from the United States to the State of Idaho, prior to December 7th, 1917, and deed was duly issued therefor to the predecessor in interest of the said Adams; that said land constitutes a valuable farm upon which valuable improvements have been heretofore placed, and a

considerable portion thereof duly cultivated and irrigated by water received under said contract from said irrigation system; that said original water contract has never been cancelled, annulled or set aside, except as said decree purports to cancel and annul the same.

(h) That John F. Engle is the owner of the Southwest Quarter of the Northeast Quarter ( $SW\frac{1}{4} NE\frac{1}{4}$ ), Section 26, Township 3, S. R. 19, E. B. M.; that said premises were entered by said Engle under the Carey Act on or about the tenth day of January, 1918, and a water contract therefor was issued to said Engle, for a valuable consideration by said Idaho Irrigation Company and approved by the State Board of Land Commissioners of the State of Idaho; that said Engle so improved cultivated and reclaimed said land; that he was entitled to make final proof thereon to the State of Idaho and such proof was duly accepted by the said State, and on or about the 29th day of January, 1921, patent was issued for said land to the said John F. Engle; that patent for said land duly issued from the United States to the State of Idaho, prior to December 7th, 1917; that said premises have been cultivated, irrigated, and farmed during each and every year, commencing with the year 1918.

(i) That W. B. Joy is the owner of the Southeast Quarter of the Southeast Quarter ( $SE\frac{1}{4} SE\frac{1}{4}$ ), Section 6, Township 3, S. R. 19, E. B. M.;

that said premises were entered under the Carey Act by one C. C. Hand, on or about the 10th day of January, 1918, who thereupon or immediately prior thereto, applied to the Idaho Irrigation Company for a water right, and a water contract, pursuant to the terms of the contract between the State of Idaho and said company, and such water right was thereupon purchased by said Hand, and a water contract duly issued by said Company; that said Hand improved, reclaimed, and established his residence on said land, and thereafter made final proof of reclamation and residence as required by the laws of Idaho, and the same was duly accepted by the State of Idaho, and patent was duly issued for said premises by the State of Idaho, to the said Hand on or about April 13th, 1920; that a patent for said land duly issued from the United States to the State of Idaho, prior to December 7th, 1917.

(j) That Dave Engle is the owner of the Southwest Quarter of the Southwest Quarter (SW $\frac{1}{4}$  SW $\frac{1}{4}$ ), Section 36, Township 3, S. R. 19, E. B. M.; that said premises were purchased by said Dave Engle from the State of Idaho, on or about the 28th day of December, 1917, the same being State school land, and thereupon said Engle applied to the Idaho Irrigation Company for a water contract for sufficient water to irrigate said lands, and thereupon such contract was issued and such water right sold to said Engle pursuant to the contract between

the said company and the State of Idaho; and thereupon said Engle proceeded to improve, cultivate, and farm said premises, and water has been applied thereon for the raising of crops during each and every year commencing with the year 1918.

(k) That Harley Grewell is the owner under a contract dated December 1st, 1917, with the Idaho Irrigation Company of the Southwest Quarter (SW $\frac{1}{4}$ ) of Section 12, Township 6, S. R. 18, E. B. M.; that said premises constitute a valuable and highly improved farm, known as the "Dietrich Demonstration Farm"; that said premises had been used for several years by said company prior to the sale thereof to said Harley Grewell, for a demonstration farm, and the same was highly cultivated and developed and water has been used thereon from said irrigation system for more than six years last past; that the said premises are planted to alfalfa which will be totally destroyed if not supplied with water at proper times during the irrigation season; that the improvements on said premises in the way of buildings, barns, fences, etc., cost upwards of \$6,500.00, and said premises with the water right appurtenant thereto, unaffected by said Decree have a value of approximately \$200.00 per acre, but if said decree be carried out according to its terms the value thereof will be totally destroyed; that a patent for said land duly issued from the United States to the State of Idaho, sometime prior to December 7th, 1917, and the contract

for the water right for said land was issued to a predecessor in interest of the said Grewell long prior to last said date, which said contract has never been cancelled, annulled, or set aside, except as said decree purports to cancel and annul the same.

(1) That E. F. Tate, purchased from the Idaho Irrigation Company, on or about January 1st, 1920, lot three, and the northeast quarter of the Southwest Quarter, ( $NE\frac{1}{4}$   $SW\frac{1}{4}$ ), Section 31, Township 4, S. R. 15, E. B. M., and immediately went into possession thereof, and has ever since been and now is in possession of said premises; that the said premises had been acquired by the Idaho Irrigation Company, by Quit Claim Deed, dated November 14th, 1918, from M. R. Kay as trustee in his capacity as trustee as hereinbefore defined. That said premises were entered under the Cary Act, on or about July 25th, 1917, by one E. G. Miller, pursuant to the laws of the State of Idaho, and the United States, and patent therefor was before December 7th, 1917, issued from the United States to the State of Idaho, and a deed was issued therefore to the predecessors in interest of the said E. F. Tate; that said land constitutes a valuable farm, and the contract entered into between the original entryman for the purchase of water right and the Idaho Irrigation Company on or about July 25th, 1917, and at the time the said premises were entered under the Carey Act has never been cancelled,

annulled, or set aside except as said decree purports to cancell and annul the same.

(m) That Otto Schild purchased from the Idaho Irrigation Company, on or about the second day of June, 1919, the Southeast Quarter of the Northwest Quarter ( $SE\frac{1}{4}$   $NW\frac{1}{4}$ ), Section 22, township 6, S. R. 14, E. B. M., and immediately went into possession thereof, and has ever since been and now is in possession of said premises, residing thereon and has made valuable and extensive improvements thereon, consisting of 35 acres of land cleared of sage brush, and ready now to be planted to crop and in addition thereto the said Schild had during the season of 1920—25 acres of wheat and barley sowed with alfalfa; that said land for several years last past has been supplied with water from said irrigation system, and said premises were entered under the Carey Act pursuant to the laws of the State of Idaho, and the United States, by one O. J. Moulton, predecessor in interest of the said Schild, on or about July 10th, 1909; that patent therefor has been issued from the United States, to the State of Idaho, and a deed was issued therefor, prior to December 7th, 1917, to the predecessors in interest of the said Schild; that said land constitutes a valuable farm and the contract entered into between the original entryman for the purchase of water rights and the Idaho Irrigation Company at the time the said premists were entered under the Carey Act has never been cancelled,



annulled, or set aside, except as said decree purports to cancel and annul the same.

(n) That W. S. Smith purchased from Lyman Rhoades trustee on or about the first day of February, 1919, the Southeast Quarter of the Northeast Quarter (SE $\frac{1}{4}$  NE $\frac{1}{4}$ ), Section 27, Township 6, S. R. 18, E. B. M., and immediately went into possession thereof, and has ever since been and now is in possession of said premises and has made valuable and extensive improvements thereon, consisting of clearing of sage brush, and rock of all said land, and plowing about 15 acres thereof and has built sheds, outbuildings, and fences on said land of the value of \$500.00. That said lands for several years last past has been supplied with water from said irrigation system; that said premises were entered under the Carey Act, pursuant to the laws of the State of Idaho, and the United States, by one William Thompson, predecessors in interest of said Smith, on or about the 8th day of June, 1909, and patent therefor has been issued from the United States to the State of Idaho, prior to the seventh day of December, 1917, and a deed was issued therefor to the predecessor in interest of the said Smith; that said land constitutes a valuable farm, and the contract entered into between the original entryman for the purchase of water rights and the Idaho Irrigation Company at the time the said premises were entered under the Carey Act, has never been cancelled, annulled, or set aside,

except as said decree purports to cancel and annul the same.

(o) That M. R. Kays, purchased from the Idaho Irrigation Company, my contract of sale, on or about May 1st, 1919, the South half of the North east quarter ( $S\frac{1}{2}$  NE $\frac{1}{4}$ ), Section 11, Township 4, S. R. 19, E. B. M., and immediately went into possession thereof, and has ever since been and now is in possession of said premises, and has made valuable and extensive improvements thereon, consisting of house, barns, sheds, cistern and fences, of the reasonable value of \$2,400.00 and has now planted on said land 25 acres in alfalfa, timothy, and clover, 13 acres blue grass pasture, 14 acres other crops, and 20 acres grain land, and said crops have been cultivated, irrigated, and farmed for more than six years last past, and said land for more than six years last past has been supplied with water from said Idaho irrigation system; that said premises were entered under the Carey Act, pursuant to the laws of the State of Idaho, and the United States by one Fred C. Robertson, on or about the 24th day of June, 1917, and patent therefor duly issued from the United States to the State of Idaho, prior to December 7th, 1917, and a deed was issued therefor to the predecessors in interest of said Kays; that said land constitutes a valuable farm, and the original contract entered into by the original entryman for the purchase of water rights from the Idaho Irrigation system on or about the 24th day

of June, 1907, has never been cancelled, annulled, or set aside, except as said decree purports to cancel and annul the same.

(p) That E. G. Molsee purchased from the Idaho Irrigation Company, on or about the first day of November, 1918, Lot 3, Section 1, Township 5 South Range 17, E. B. M., and immediately went into possession thereof, and has ever since been and now is, in possession of said premises, and has made valuable and extensive improvements thereon, consisting of a house and fences, of the reasonable value of \$190.00, and has 35 acres of said ground cleared and plowed and ready to be seeded; that said lands for several years last past have been supplied with water from said irrigation system; that said premises were entered under the Carey Act, pursuant to the laws of the State of Idaho, and the United States, by one W. R. Greene, predecessor in interest of the said Molsee, on or about April 4th, 1909, and patent therefor duly issued from the United States to the State of Idaho, prior to December 7th, 1917, and a deed was duly issued thereafter to the predecessor in interest of the said Molsee; that said land constitutes a valuable farm, and the contract entered into between the original entryman for the purchase of water rights from the Idaho Irrigation Company, at the time the said premises were entered under the Carey Act, has never been cancelled, annulled, or set aside, except as said Decree purports to cancel and annul the same.

(q) That T. M. Osborn is the owner of the SE $\frac{1}{4}$  of the NE $\frac{1}{4}$ , Section 36, Township 4, S. R. 18, E. B. M.; that said premises were purchased by said T. M. Osborn from the State of Idaho, on or about October 10th, 1919, and thereupon said Osborn applied to the Idaho Irrigation Company for a water contract for 17 shares in the Big Wood River Reservoir and Canal Company, Ltd., sufficient to irrigate the irrigable land on said tract, and thereupon such contract was issued, and such water sold to said Osborn by said Idaho Irrigation Company pursuant to the contract between the said company and the State of Idaho; that said land constitutes a valuable farm and the contract entered into between the said Osborn for the purchase of water rights from the Idaho Irrigation Company at the time the said premises were purchased from the State of Idaho, has never been cancelled, annulled, or set aside, except as said decree purports to cancel and annul the same.

(r) That Frank L. Thomas, on or about December 1, 1919, filed upon lot 2, of Section 7, Township 6, S. R. 16, E. B. M., under the desert entry land laws of the United States, and immediately went into possession thereof, and on or about said last date entered into a contract for the purchase of a water right for said land from the Idaho Irrigation Company for the 35 shares of the capital stock of the Big Wood River Reservoir and Canal Company, Ltd., and immediately went into possession of

said land, and has ever since been and now is in possession of the same, and has completely fenced said land and has heretofore planted 34 acres thereof to wheat; that said land constitutes a valuable farm and the contract entered into between the said Thomas for the purchase of water rights from the Idaho Irrigation Company as heretofore alleged, has never been cancelled or annulled or set aside, except as said decree purports to cancel and annul the same.

(s) That William Roseberry, purchased from the Idaho Irrigation Company, on or about the 11th day of October, 1919, one acre in Section 25, Township 4, S. R. 19, E. B. M., which said land had theretofore been a part of the homestead entry of one Charles Hernsheim, and patent by the United States of America to the said Hernsheim, issued December 8th, 1907, and a contract for a water right from the said irrigation system had issued appurtenant to said land prior to last said date, and water used upon said land for the irrigation of crops prior to October 8th, 1907; that said land was afterwards by the said Hernsheim deeded to the Idaho Irrigation Company, and was platted for a townsite called the Village of Richfield, Lincoln County, Idaho; that a portion of said Village, and the plat thereof, was, on or about December 27th, 1910, vacated and thereafter, one acre of the same was on or about October 11th, 1919, purchased by the said Roseberry, who ever since has

been and now is, in possession of said premises, and residing thereon, and has made valuable and extensive improvements thereon, consisting of a house, barns, sheds, and fences of the reasonable value of \$465.00. That said land has been irrigated and farmed by the said Roseberry and his predecessors in interest for more than six years last past, from the said Idaho irrigation system; that the water right appurtenant to said land has never been cancelled, annulled, or set aside, except as said decree purports to cancel and annul the same.

(t) That J. G. Wilmoth, purchased from the Idaho Irrigation Company, on or about November 20th, 1918, the Northwest Quarter of the Southeast Quarter (NW $\frac{1}{4}$  SE $\frac{1}{4}$ ), Section 18, Township 4, S. R. 20, E. B. M., and immediately went into possession thereof, and has ever since been and now is, in possession of said premises and has made valuable and extensive improvements thereon consisting of a house, barns, cistern, and fences of the approximate value of \$2,000.00, and has had in cultivation about 32 acres of said land, planted to wheat and oats; that said lands for more than six years last past have been supplied with water from the said Idaho Irrigation system; that said premises were entered under the Carey Act pursuant to the laws of the State of Idaho, and the United States, by one James Goss, predecessor in interest of said Wilmoth, on or about April 25th, 1911, who at said time contracted to purchase a water right from said ir-

rigation system; that patent therefor has been issued from the United States to the State of Idaho, prior to December 7th, 1917, and a deed was duly issued therefor to the predecessors in interest of said Wilmoth; that said land constitutes a valuable farm, and the contract entered into between the original entryman for the purchase of a water right therefor from the Idaho Irrigation Company at the time the said premises were entered under the Carey Act has never been cancelled, annulled, or set aside, except as said decree purports to cancel and annul the same.

(u) That W. D. Fales and R. W. Houston, are the owners of the Northeast Quarter of the Northeast Quarter ( $NE\frac{1}{4}$   $NE\frac{1}{4}$ ), Section 36, Township 5, S. R. 14, E. B. M.; that said premises were purchased by said W. D. Fales and R. W. Houston, from the State of Idaho, on or about the first day of May, 1918, and thereupon said Fales and Houston applied to the Idaho Irrigation Company for a water contract for sufficient water to irrigate said lands and thereupon such contract was issued and such water right sold to Fales and Houston by said Idaho Irrigation Company, pursuant to the contract between the said company and the State of Idaho, and thereupon the said Fales and Houston proceeded to improve, cultivate and farm said premises, for the raising of crops during each and every year, commencing with the year 1918.

(v) That Mrs. Monie Clinger made entry of

Lot 4, Section 31, Township 5, S. R. 18, E. B. M., under the homestead laws of the United States on March 15th, 1918, and immediately went into possession thereof, and has ever since been and now is, in possession of said premises, residing thereon, and has made valuable and extensive improvements thereon consisting of a house, barns, sheds, outbuildings, and fences of the reasonable value of \$925.00 and has 20 acres of said land seeded to wheat and alfalfa, and has irrigated and farmed the same since and beginning with the irrigation season of 1918; that said Monnie Clinger did on March 15th, 1918, enter into a contract with the Idaho Irrigation Company, for the purchase of 40 shares of the capital stock of the Big Wood River Reservoir and Canal Company, Limited, entitling plaintiff to receive water from the irrigation system of the Idaho Irrigation Company, and that water has been received and used for the irrigation of crops upon said land since and during said time; that the said water contract entered into between the said Monnie Clinger for the purchase of a water right from the Idaho Irrigation Company, as hereinbefore alleged, has never been cancelled, annulled, or set aside, except as said decree purports to cancel and annul the same.

(w) That Steve Ballard purchased under an option agreement from the Idaho Irrigation Company, the Southeast Quarter of the Northwest Quarter ( $SE\frac{1}{4}$   $NW\frac{1}{4}$ ), Section 25, Township 6, S. R.



18, E. B. M., on March 28th, 1919, and immediately went into possession thereof, and has ever since been and now is, in possession of said premises, residing thereon, and has made valuable and extensive improvements thereon, consisting of a house, barns, cistern, and fences of the value of \$470.00, and has 30 acres of said land in cultivation; that said land was entered under the Carey Act pursuant to the laws of the State of Idaho, and the United States, by one Henry A. Lehmkuhl, on June 8th, 1909, and a contract for the purchase of a water right between the said entryman and the Idaho Irrigation Company was executed on said date; that said lands for more than six years last past have been supplied with water from said Idaho Irrigation system; that patent for said land duly issued from the United States to the State of Idaho, prior to the 7th day of December, 1917, and a deed was duly issued therefor to the predecessors in interest of said Ballard; that said land constitutes a valuable farm and the contract entered into between the original entryman for the purchase of a water right for said land and the Idaho Irrigation Company at the time the said premises were entered under the Carey Act has never been cancelled, annulled, or set aside, excepting as said decree purports to cancel and annul the same.

(x) That Arthur W. Garrett, purchased from the Idaho Irrigation Company, by contract of sale, on or about December 11th, 1918, the West Half of

the Southeast Quarter, (W $\frac{1}{2}$  SE $\frac{1}{4}$ ), Section 1, township 4, S. R. 19, E. B. M., who immediately went into possession thereof, and has ever since been and now is, in possession of said premises, residing thereon, and has made valuable and extensive improvements thereon, consisting of a house, barns, sheds, outbuildings and fences, of the reasonable value of \$1150.00, and has 75 acres of said land cultivated and planted to alfalfa and grain land; that said land has for more than six years last past been supplied with water from said Idaho Irrigation Company system; that said premises were entered under the Carey Act pursuant to the laws of the State of Idaho, and the United States, by George T. McArthur, predecessor in interest of Arthur W. Garrett, on September 26th, 1907, and a water contract duly entered into between the said entryman, and the Idaho Irrigation Company, for the purchase of a water right and stock in the Big Wood River Reservoir and Canal Company, Ltd., for said land; that patent therefor has been issued from the United States and the State of Idaho, prior to December 7th, 1917, and a deed was issued therefor to the predecessor in interest of the said Garrett; that said land constitutes a valuable farm, and the contract entered into between the original entryman for the purchase of water rights from the Idaho Irrigation Company at the time the said premises were entered under the Carey Act, has never been cancelled, annulled,

or set aside, except as said decree purports to cancel and annul the same.

(y) That George W. Bowman, purchased from Lyman Rroades trustee, by contract of sale, on or about the first day of April, 1919, the North Half of the Northeast Quarter ( $N\frac{1}{2}$   $NE\frac{1}{4}$ ), Section 23, Township 6, S. R. 18, E. B. M., and immediately went into possession thereof, and has ever since been and now is, in possession of said premises, residing thereon and has made valuable and extensive improvements thereon, consisting of a house, barns, sheds, well, and fences, of the reasonable value of \$25,022.00, and has in cultivation, 65 acres of said land heretofore planted to alfalfa, wheat and potatoes; that said lands have been cultivated, irrigated, and farmed for several years last past by the said Bowman, and his predecessors in interest; that said lands for more than six years last past have been supplied with water from said Idaho Irrigation system; that said premises were entered under the Carey Act, pursuant to the laws of the State of Idaho, and the United States, by one Edward C. Petrie on or about June 8th, 1909, predecessor of said George W. Bowman, and patent therefor was issued from the United States to the State of Idaho, before December 7th, 1917, and a deed was issued therefor to the predecessors in interest of said Bowman; that said land constitutes a valuable farm and the contract entered into between the original entryman for the purchase of water rights from

the Idaho Irrigation Company at the time the said premises were entered under the Carey Act, has never been cancelled, annulled or set aside, except as said decree purports to cancel and annul the same.

(z) That A. L. Fletcher, is the owner by virtue of a certain exchange of lands and water rights made with the Idaho Irrigation Company, of the Southwest Quarter of the Northeast Quarter ( $SW\frac{1}{4}$   $NE\frac{1}{4}$ ) and the Southeast Quarter of the Northwest Quarter ( $SE\frac{1}{4}$   $NW\frac{1}{4}$ ) Section 32, Township 4, S. R. 19, E. B. M., and so exchanged in the following manner:

That prior to December 7th, 1917, the said A. L. Fletcher was the owner of by purchase, of lots three and four and the East Half of the Southwest Quarter ( $E\frac{1}{2}$   $SW\frac{1}{4}$ ), Section 30, Township 4, S. R. 17, E. B. M.,—otherwise described as the Southwest Quarter, Section 30, Township 4, S. R. 17, E. B. M., with a water right appurtenant thereto, consisting of 162.10 shares of the capital stock of the Big Wood River Reservoir and Canal Company, Ltd., upon which approximately one-half of the full amount of principal and interest due under the contracts of purchase for said water rights or stock had been paid by the said A. L. Fletcher, and his predecessors in interest to the Idaho Irrigation Company; that said Idaho Irrigation Company, Ltd., was on the 26th day of November, 1918, the owner of the Southwest Quarter of the Northeast Quarter

(SW $\frac{1}{4}$  NE $\frac{1}{4}$ ), and the Southeast Quarter of the Northwest Quarter (SE $\frac{1}{4}$  NW $\frac{1}{4}$ ), Section 32, Township 4, S. R. 19, E. B. M., to which there was appurtenant a water right consisting of 80 shares of stock in the said Big Wood River Reservoir and Canal Company, which was subject to a rebate on account of the canal right-of-way, whereas the said Idaho Irrigation Company had owned said last described lands for several years prior to November 26th, 1918, and had been unable to dispose of the same and whereas said land was situated in close proximity to other lands owned and farmed by the said Fletcher, an exchange of lands and water rights was agreed upon and consummated whereby the said Fletcher conveyed to the said Idaho Irrigation Company, said lots 3 and 4 and the East Half of the Southwest Quarter (E $\frac{1}{2}$  SW $\frac{1}{4}$ ), Section 30, Township 4, S. R. 17, E. B. M., with the 162.10 shares of water stock and received in full payment for his equity therein the Southwest Quarter of the Northeast Quarter (SW $\frac{1}{4}$  NE $\frac{1}{4}$ ), and the Southeast Quarter of the Northwest Quarter (SE $\frac{1}{4}$  NW $\frac{1}{4}$ ), Section 32, Township 4, S. R. 19, E. B. M., together with 74 acres of the capital stock of the Big Wood River Reservoir and Canal Company, Ltd., fully paid, thereby reducing the water right demand upon the Idaho Irrigation Company system from 162.10 shares to 74 shares; that said trade and exchange as hereinbefore recited, was consummated on November 26th, 1918; about 20

shares of the said land so received by the said Fletcher in exchange as hereinbefore recited has been cleared, plowed, and rock removed, and is ready for the planting of crops; that Southwest Quarter of the Northeast Quarter ( $SW\frac{1}{4} NE\frac{1}{4}$ ), and the Southeast Quarter of the Northwest Quarter ( $SE\frac{1}{4} NW\frac{1}{4}$ ), Section 32, Township 4, S. R. 19, E. B. M., was filed upon, on or about June 22nd, 1909, by Edwin J. Brown, Jr., under the Carey Act, pursuant to the laws of the State of Idaho, and the United States, and water contract on said date was entered into between the said Brown and the Idaho Irrigation Company, for the irrigation of said lands, and patent therefor had been issued from the United States to the State of Idaho prior to December 7th, 1917, and a deed was issued therefor to the successors in interest to the said Edwin J. Brown, Jr.; that the said lots 3 and 4 and the East Half of the Southwest Quarter ( $E\frac{1}{2} SW\frac{1}{4}$ ) of Section 30, Township 4, S. R. 17, E. B. M., was entered under the Carey Act pursuant to the laws of the State of Idaho, and the United States, by one Charles W. Johnston, on or about October 28th, 1909, and a water contract duly entered into between the said Johnston and the Idaho Irrigation Company on said date for the irrigation and reclamation of said land; that patent therefor duly issued from the United States to the State of Idaho, prior to December 7th, 1917, and a deed was issued therefor in due course of time to the successors in interest of the said John-

ston; that the water right for said tracts of land has never been cancelled and annulled or set aside, except as said decree purports to cancel and annul the same.

(aa) That George F. Gorow purchased from the Idaho Irrigation Company, on or about May 1st, 1918, the Northwest Quarter of the Southeast Quarter ( $NW\frac{1}{4} SE\frac{1}{4}$ ), and the Northwest Quarter of the Northeast Quarter ( $NW\frac{1}{4} NE\frac{1}{4}$ ), and the Southwest Quarter of the Northeast Quarter ( $SW\frac{1}{4} NE\frac{1}{4}$ ), and the Northeast Quarter of the southwest Quarter ( $NE\frac{1}{4} SW\frac{1}{4}$ ), all in Section 12, Township 4, S. R. 19, E. B. M., and immediately went into possession thereof and has ever since been and now is in possession of said premises and has made valuable and extensive improvements thereon, of the value of several thousand dollars, and has approximately 120 acres in cultivation, planted to various crops, which said land has been cultivated, irrigated, and farmed for a greater period than six years last past with water obtained under contract from the said Idaho Irrigation system; that said premises were entered under the Carey Act, pursuant to the laws of the State of Idaho, and the United States, long prior to December 7th, 1917, and patent therefor duly issued from the United States to the State of Idaho, prior to December 7th, 1917, and a deed duly issued therefor to the predecessors in interest of the said Gorow; that said land constitutes a valuable

farm, and the contracts entered into between the original entryman for the purchase of water rights from the Idaho Irrigation Company by the predecessors in interest of the said Gorow, has never been cancelled, annulled, or set aside except as said decree purports to cancel and annul the same.

(bb) That George F. Gorow purchased from the Idaho Irrigation Company, 4 acres located in the unplatted portion of the Richfield townsite in the Southwest Quarter of the Southwest Quarter SW $\frac{1}{4}$  SW $\frac{1}{4}$ ) of Section 24, Township 4, S. R. 19, E. B. M., with 4 shares of stock appurtenant thereto in the Big Wood River Reservoir and Canal Co., Ltd.; that said land was originally entered by one Charles Hernsheim, as a homestead entry on or about the 8th day of October, 1907, and a water right, from said irrigation system duly issued appurtenant thereto; that said land was later reserved as a part and portion of the Richfield townsite, but not platted to lots; that on or about December 27th, 1910, that portion of said townsite in which the above mentioned four acres is located, was vacated and was on or about October 31st, 1919, by the said townsite company, with the stock appurtenant thereto, sold to the said George F. Gorow; that water has been used upon said land since the date of the water contract which was duly issued therefor at the time hereinbefore recited; that patent duly issued therefor to the predecessor in interest of the said Gorow, long prior to Decem-



ber 7th, 1917; that said land constitutes a valuable farm and the original water contract entered into for the purchase of water rights from the Idaho Irrigation Company and the predecessors in interest of the said Gorow, has never been cancelled, annulled, or set aside, except as said decree purports to cancel and annul the same.

(cc) That Bert Wyant and Lillie Dale Wyant are the owners of the East Half of the Southwest Quarter ( $E\frac{1}{2}$  SW $\frac{1}{4}$ ), and the Southeast Quarter of the Northeast Quarter ( $SE\frac{1}{4}$  NE $\frac{1}{4}$ ) Section 16, Township 4, S. R. 19, E. B. M., and the Northeast Quarter of the Northeast Quarter ( $NE\frac{1}{4}$  NE $\frac{1}{4}$ ), and the Northwest Quarter of the Northeast Quarter ( $NW\frac{1}{4}$  NE $\frac{1}{4}$ ) and the Northwest Quarter of the Southwest Quarter ( $NW\frac{1}{4}$  SW $\frac{1}{4}$ ) Section 36, Township 3, S. R. 19, E. B. M.; that said premises were purchased by the said Bert Wyant and Lillie Dale Wyant from the State of Idaho, under the law pertaining to the sale of said school land; that said Bert Wyant and Lillie Dale Wyant duly applied to the Idaho Irrigation Company for a water contract for sufficient water to irrigate said lands, and thereupon the contract was issued in the form prescribed by the contract between the said Idaho Irrigation Company and the State of Idaho, and such water rights was duly sold to the said Bert Wyant and Lillie Dale Wyant, pursuant thereto, and thereupon the said Bert Wyant proceeded to improve, cultivate, and farm said premises and water has

been applied thereon for the raising of crops during each and every year for several years last past; that said lands constitute a valuable farm and that the water rights issued thereto have become appurtenant to said land under the constitution and laws of the State of Idaho, as these intervenors are informed and believe, and so allege the fact to be.

(dd) That A. C. Kerschner is the owner of the South Half of the Southwest quarter ( $S\frac{1}{2} SW\frac{1}{4}$ ), and the Southwest quarter of the Southeast ( $SW\frac{1}{4} SE\frac{1}{4}$ ), Section 13, Township 6, S. R. 18, E. B. M., which was purchased from the Idaho Irrigation Company on the first day of December, 1917, by a contract of sale duly entered into at that time that the said Kerschner at said time went into possession thereof and has ever since been, and now is, in possession of said premises, residing thereon and has made valuable and extensive improvements consisting of house, barns, sheds, well, and fences, of the reasonable value of \$4700.00, and has cultivated, irrigated, and farmed about 65 acres of said land and which has been so farmed and cultivated for more than six years last past, and which has been supplied with water from said irrigation system; that said premises were entered under the Carey Act, pursuant to the laws of the State of Idaho, and the United States, long prior to December 7th, 1917, by a predecessor in interest of the said Kerschner; that patent duly issued therefor from the United States to the State of Idaho, prior

to December 7th, 1917, and a deed issued therefor to the predecessors in interest of said Kerschner; that a large part of said premises have been planted to crops and said land constitutes a valuable farm, and the original contract entered into between the original entryman for the purchase of water rights from the Idaho Irrigation Company at the time the said premises were entered under the Carey Act has never been cancelled, annulled, or set aside, except as said decree purports to cancel and annul the same.

(ee) That Erle Whipkey is the owner of the East Half of the Southwest Quarter ( $E\frac{1}{2}$  SW $\frac{1}{4}$ ), Section 10, Township 6, S. R. 14, E. B. M., and a contract for the right to use water from the Idaho Irrigation system for said land; that said land was entered under the Carey Act, pursuant to the laws of the State of Idaho, and the United States by one Fred Edwards, on or about November 18th, 1907; that water has been used on said land since last said date and for more than six years last past from said irrigation system; that patent was issued from the United States to the State of Idaho, long prior to December 7th, 1917, and a deed was issued therefor to the predecessors in interest of said Whipkey; that the water right entered into between the original entryman for the purchase of water rights from the Idaho Irrigation Company system at the time said premises were entered under the Carey Act, has never been cancelled, an-

nulled, or set aside, except as said decree purports to cancel and annul the same.

(ff) That H. D. Edwards purchased from the Idaho Irrigation Company, on or about December 1st, 1919, the Northeast Quarter of the Northeast Quarter (NE $\frac{1}{4}$  NE $\frac{1}{4}$ ), Section 7, Township 4, S. R. 19, E. B. M., and immediately went into possession thereof, and has ever since been and now is in possession of said premises and has made valuable and extensive improvements thereon; that said land was entered under the Carey Act, on or about March 17th, 1909, by one Arthur W. Randall; that said land has been irrigated and farmed since said time; that patent for said land duly issued from the United States to the State of Idaho, long prior to December 7th, 1917, and a deed duly issued therefor to the predecessors in interest of the said Edwards; that said land constitutes a valuable farm and the contract entered into between the original entryman for the purchase of water rights from the Idaho Irrigation Company at the time the said premises were entered under the Carey Act, has never been cancelled, annulled or set aside, except as said decree purports to cancel and annul the same.

(gg) That C. J. Schafer purchased by contract of sale from the Idaho Irrigation Company on or about May 15th, 1918, that certain part of the Northeast Quarter of the Northeast Quarter (NE $\frac{1}{4}$  NE $\frac{1}{4}$ ), Section 25, Township 4, S. R. 19,

E. B. M., lying to the north of the Oregon Short Line Railroad Company right-of-way, containing 11.5 acres; that a water contract was duly entered into between one Noah W. Strunk, and the Idaho Irrigation Company, on or about May 21st, 1913, for said land; that said land contains valuable and extensive improvements thereon and has been cultivated, irrigated and farmed since the date of said water contract with water supplied from said irrigation system; that said water contract so entered into has never been cancelled, annulled, or set aside except as said decree purports to cancel and annul the same.

(hh) That A. H. Bower, purchased from the Idaho Irrigation Company, on or about the first day of December, 1918, the Northeast Quarter of the Southwest Quarter (NE $\frac{1}{4}$  SW $\frac{1}{4}$ ), Section 9, Township 5, S. R. 15, E. B. M.; that said land was originally entered under the Carey Act by one Arthur L. Lamkin on or about November 1st, 1912, which lands since said date have been supplied with water for irrigation from the Idaho Irrigation Company system, under said contract, and valuable crops have been grown thereon; that a patent to said lands duly issued to the State of Idaho from the United States, long prior to December 7th, 1917, and a deed was issued therefor to the predecessors in interest of the said Bower; that said contract for the purchase of a water right from the Idaho Irrigation Company for said lands has never been can-

celled, annulled, or set aside, except as said decree purports to cancel and annul the same.

(ii) That Elbert Sherman, purchased from the Idaho Irrigation Company on or about the 1st day of October, 1918, the Northeast Quarter of the Southwest Quarter ( $NE\frac{1}{4}$   $SW\frac{1}{4}$ ), Section 24, township 6, S. R. 18, E. B. M., and immediately went into possession thereof, and has ever since been and now is in possession of said premises, and has made valuable and extensive improvements thereon, and has cultivated and irrigated the same; that said lands were originally entered under the Carey Act, on or about June 8th, 1909, by one G. F. Manker, who at said time entered into a contract for a water right from the said Idaho Irrigation Company system; that water has been used upon said land for the cultivation of crops under and by virtue of said contract since said date; that a patent duly issued from the United States to the State of Idaho, pursuant to the laws pertaining to the Carey Act, prior to December 7th, 1917, and a deed duly issued to the predecessors in interest of said Sherman; that the water right purchased under said water contract has never been cancelled, annulled, or set aside, except as said decree purports to cancel and annul the same.

(kk) That Z. T. Spellman is the owner of the  $S\frac{1}{2}$   $SE\frac{1}{4}$   $NW\frac{1}{4}$ , and the  $S\frac{1}{2}$   $SW\frac{1}{4}$   $NW\frac{1}{4}$ , Section 36, Township 3, S. R. 19, E. B. M.; that said premises were purchased by W. E. Campbell and

Bertha Tuttle Campbell, from the State of Idaho, under the laws pertaining to the sale of state school lands, on or about the 31st day of December, 1918, which said land was acquired by the said Spellman from his successor in interest of last said named parties on December 31st, 1919; that upon December 31st, 1918, the said predecessors in interest of the said Spellman applied to the Idaho Irrigation Company for a water contract for 40 shares of the stock of the Big Wood River Reservoir and Canal Company, Limited, sufficient to irrigate said lands, and thereupon such contract was issued and such water right sold to the said predecessors in interest of the said Spellman pursuant to the contract between the said company and the State of Idaho; that water has been applied on said premises for the raising of crops thereon, during each and every year commencing with the year 1918; that said water right so purchased and acquired as hereinbefore recited has never been cancelled, annulled, or set aside, except as said decree purports to cancel and annul the same.

(11) That J. H. Scott, purchased from the Idaho Irrigation Company, on or about October 22nd, 1919, the Northeast quarter of the Northeast Quarter ( $NE\frac{1}{4}$   $NE\frac{1}{4}$ ), Section 12, Township 5, S. R. 17, E. B. M., under an option agreement entered into with said company on said date; that the said Scott went into possession thereof and has ever since been and now is in possession of the said

premises; that said land was originally entered under the Carey Act, pursuant to the laws of the State of Idaho, and the United States, by one E. L. Horword, on the second day of April, 1909; that said lands have for more than six years last past, been supplied with water from said irrigation system under and by virtue of said contract; that patent duly issued therefor from the United States to the State of Idaho, prior to December 7th, 1917, and a deed was issued therefor to the predecessors in interest of the said Scott; that said land constitutes a valuable farm, and the contract entered into between the original entryman for the purchase of the water rights from said Idaho Irrigation Company for said land has never been cancelled, annulled or set aside, except as said decree purports to cancel and annul the same.

(mm) That Dionysius B. Kountainius purchased from M. R. Kays, trustee, on or about June 20th, 1918, the Southeast Quarter of the Northwest Quarter (SE $\frac{1}{4}$  NW $\frac{1}{4}$ ) Section 1, Township 4, S. R. 19, E. B. M., and now is and ever since has been in possession thereof; that said land has been fenced by an expenditure of the approximate sum of \$400.00, and 35 acres has heretofore been planted to barley and wheat; that said lands for more than six years last past has been supplied with water from said irrigation system; that said premises were entered under the Carey Act, pursuant to the laws of the State of Idaho, and United States by one



J. J. Bryant, Jr., on or about Oct. 30, 1908, under the laws pertaining to the entry of land under the Carey Act, and on or about last said date a contract for the purchase of a water right was entered into between the said Bryant and the Idaho Irrigation Co.; that water has been used on said land under and by virtue of said contract each year since last said date; that patent for said land duly issued from the United States to the State of Idaho, prior to Dec. 7, 1917, and a deed was issued therefor to the predecessors in interest of said Kountanius; that said land constitutes a valuable farm and that the water contract entered into between the original entryman for the purchase of water rights from the Idaho Irrigation Company at the time the said premises were entered under the Carey Act has never been cancelled, annulled, or set aside, except as said decree purports to cancel and annul the same.

## VI.

That your intervenors are informed and believe, and so allege the fact to be, that the State of Idaho in the exercise of its supervisory powers over said Idaho Irrigation Company, Limited, and in the carrying out of the contract between said Company and the State, and in carrying out the terms of the Federal Act known as the Carey Act, in connection with the reclaiming of the lands in the Big Wood River Irrigation project segregated from the public domain under said Act, authorized and approved

the sale of water rights and shares and interests in said irrigation system by the Idaho Irrigation Company, Limited, until on or about the 3rd of May, 1919, and that by reason thereof all water rights, shares and interests in said irrigation system evidenced by stock in the Big Wood River Reservoir and Canal Company, Limited, sold prior to the 3rd day of May, 1919, are valid and on an equality and of equal priority with the water rights, stock, shares and interest held by the plaintiffs in this suit, and that the filing of what is denominated a *lis pendens* by the plaintiffs did not operate to annul the authority of the State of Idaho or the Idaho Irrigation Company, Limited, in the matter of selling water rights, shares or interests in said irrigation system, and that purchasers of the stock of the operating company from the Idaho Irrigation Company, could not, under the laws of the State of Idaho, be charged with notice of the pendency of this action, and would not be bound by any decree that might be entered in such suit in their absence, and without having been brought into such suit by process according to the usual practice of courts of equity; and your intervenors further show that the Bill of Complaint was amended in many important respects after the filing of said suit, and without notice to or knowledge thereof by these intervenors.

## VII.

Your petitioners further show that the proof of-

ferred by plaintiffs to show that the water rights of these intervenors could be cancelled and annulled consisted of plaintiff's Exhibits Nos. 25 and 26, which were certificates or statements of the abstract companies in Lincoln and Gooding Counties, stating in substance and effect that the title to certain lands therein described, stood on the records in the office of the County Recorder of such county in the name of the Idaho Irrigation Company, or in the name of the Equitable Trust Company or Lyman Rhoades, Trustees, on the 7th day of December, 1917, when in truth and in fact many of your intervenors had valid contracts of purchase covering water rights and lands, which contracts had not been recorded but had been entered into in good faith and for a valuable consideration. That plaintiffs further submitted proof consisting of a certificate from the Commissioner of Reclamation that certain Carey Act entries were subject to cancellation, which certificates contained certain clerical errors, in that it stated that certain lands were subject to cancellation, when as a matter of fact such lands were in good standing or patent had actually issued therefor.

#### VIII.

That said decree deprives your intervenors of their property without due process of law, and in effect confiscates their water rights and farms, for such farms are without value unless supplied with water from said irrigation system, and your inter-

venors will be without redress if said decree be not modified and changed so as to protect their rights to water from said irrigation system. That it is alleged in the Bill of Complaint that the Equitable Trust Company and Lyman Rhoades, Trustees, are not liable for the damages that will be sustained by purchasers of water rights from the Idaho Irrigation Company, and it is further alleged that said Company is insolvent and cannot respond in damages, and your intervenors will therefore be without any relief if said decree be enforced according to its terms, and their water rights cancelled and annulled.

### IX.

Your intervenors further show that unless said decree be modified or changed they cannot receive water this coming irrigation season for the irrigation of their alfalfa or grain crops planted this coming spring, and that if they plant such crops the labor and expense involved will be a total loss unless such water can be received, and that it is therefore necessary that your intervenors should learn in ample season whether said decree will be modified or changed or whether in some other way it will be ordered and decreed that water be delivered for the irrigation of their lands this year so that they may proceed in due season and at the proper time with their farming operations and the planting of their crops.

WHEREFORE, your intervenors pray that they may be permitted to submit proof as to the status of their water rights and their title thereto, and as to their water from said irrigation system, and that it may be adjudged and decreed that there is no priority between the water users or persons entitled to water from said irrigation system under contracts of purchase with the Idaho Irrigation Company, but that all such contracts are on an equality without preference or priority of one over another, and for their costs herein.

WALTERS & HODGIN,

*Residence: Twin Falls, Idaho.*

RICHARDS & HAGA,

*Residence: Boise, Idaho.*

*Solicitors for Intervenors.*

(Duly verified)

Filed March 21, 1921.

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*In the District Court of the Fourth Judicial District of the State of Idaho, in and for the County of Lincoln.*

Fred W. Gooding; Novinger & Darrah Sheep Company, Limited, a corporation; T. B. Jones; J. H. Culbertson; N. W. Sine; W. I. Briggs; Louis Johnson; C. B. Hess, and Frank R. Gooding,

*Plaintiffs.*

vs.

The Idaho Irrigation Company, Limited, a corporation; The Equitable Trust Company of New York, a corporation, and Lyman Rhoades, as Trustees for the Bond Holders of the Idaho Irrigation Company, Limited; and M. R. Kays, as Trustee,

*Defendants.*

## EXHIBIT "A".

## TO WHOM IT MAY CONCERN:

YOU ARE HEREBY NOTIFIED, That the above named plaintiffs, did on the 7th day of December, 1917, file in the District Court of the Fourth Judicial District of the State of Idaho, in and for Lincoln County, their certain action, whereby they seek to enjoin and restrain the defendants Idaho Irrigation Company, Limited; M. R. Kays as Trustee; The Equitable Trust Company of New York, and Lyman Rhoades as Trustee, from selling and disposing of any further shares of stock owned by them, or either of them, in the Big Wood River Reservoir & Canal Company, Limited. And especially enjoining and restraining each and all of them from selling or disposing of any shares of stock in said Big Wood River Reservoir & Canal Company, for the purpose of evidencing water rights, to be used upon the following described land, to-wit:

| Lot 6                             | Section | 6, and | 37.85  | shares |
|-----------------------------------|---------|--------|--------|--------|
| SW $\frac{1}{4}$ NE $\frac{1}{4}$ | "       | 8, "   | 40.00  | "      |
| N $\frac{1}{2}$ NE $\frac{1}{4}$  | "       | 34, "  | 80.00  | "      |
| NW $\frac{1}{4}$                  | "       | 35, "  | 224.70 | "      |
| NW $\frac{1}{4}$ NE $\frac{1}{4}$ | "       | 7, "   | 20.    | "      |
| NW $\frac{1}{4}$ SE $\frac{1}{4}$ | "       | 8, "   | 40.    | "      |
| SW $\frac{1}{4}$                  | "       | 35, "  | 160.   | "      |
| SW $\frac{1}{4}$ NW $\frac{1}{4}$ | "       | 12, "  | 38.    | "      |
| NE $\frac{1}{4}$ SW $\frac{1}{4}$ | "       | 9, "   | 70.    | "      |
| SE $\frac{1}{4}$ NE $\frac{1}{4}$ | "       | 32, "  | 8.8    | "      |
| E $\frac{1}{2}$ NW $\frac{1}{4}$  | "       | 7, "   | 80.    | "      |

|                                   |   |    |   |        |   |
|-----------------------------------|---|----|---|--------|---|
| E $\frac{1}{2}$ SE $\frac{1}{4}$  | " | 6, | " | 20.    | " |
| Lots 3-4, and                     |   |    |   |        |   |
| E $\frac{1}{2}$ SE $\frac{1}{4}$  | " | 7, | " | 155.05 | " |
| SE $\frac{1}{4}$ SW $\frac{1}{4}$ | " | 9, | " | 40.    | " |
| SE $\frac{1}{4}$ SW $\frac{1}{4}$ | " | 9, | " | 40.    | " |
| NE $\frac{1}{4}$ SW $\frac{1}{4}$ | " | 9, | " | 40.    | " |
| W $\frac{1}{2}$ SE $\frac{1}{4}$  | " | 7, | " | 20.    | " |
| SE $\frac{1}{4}$ SW $\frac{1}{4}$ | " | 9, | " | 40.    | " |

Lots 3-4,

|                                   |   |     |   |        |   |
|-----------------------------------|---|-----|---|--------|---|
| E $\frac{1}{2}$ SW $\frac{1}{4}$  | " | 7,  | " | 155.05 | " |
| SW $\frac{1}{4}$ NE $\frac{1}{4}$ | " | 28, | " | 11.    | " |
| SW $\frac{1}{4}$ SW $\frac{1}{4}$ | " | 28, | " | 20.    | " |

All of which land is located in Township five (5),  
South of Range fifteen (15), E. B. M.

|                                                    |         |     |     |     |        |
|----------------------------------------------------|---------|-----|-----|-----|--------|
| N $\frac{1}{2}$ SE $\frac{1}{4}$                   | Section | 9,  | and | 80. | shares |
| SE $\frac{1}{4}$ SE $\frac{1}{4}$                  | "       | 14, | "   | 40. | "      |
| SW $\frac{1}{4}$ SW $\frac{1}{4}$                  | "       | 13, | "   | 46. | "      |
| SW $\frac{1}{4}$ SW $\frac{1}{2}$                  | "       | 23, | "   | 40. | "      |
| $\frac{1}{3}$ of SW $\frac{1}{4}$ SE $\frac{1}{4}$ | "       | 14, | "   | 40. | "      |

All of which land is located in Township 6,  
South of Range 14, E. B. M.

|                                                     |         |     |     |       |        |
|-----------------------------------------------------|---------|-----|-----|-------|--------|
| W $\frac{1}{2}$ NW $\frac{1}{4}$ ; SE $\frac{1}{4}$ |         |     |     |       |        |
| NW $\frac{1}{4}$                                    | Section | 12, | and | 108.7 | shares |
| $\frac{1}{2}$ of W $\frac{1}{2}$ NW $\frac{1}{4}$ ; |         |     |     |       |        |
| SE $\frac{1}{4}$ NW $\frac{1}{4}$                   | "       | 12, | "   | 108.7 | "      |
| SE $\frac{1}{4}$ NW $\frac{1}{4}$                   | "       | 12, | "   | 60.   | "      |
| SW $\frac{1}{4}$ SE $\frac{1}{4}$ ; E $\frac{1}{2}$ |         |     |     |       |        |
| SE $\frac{1}{4}$ SW $\frac{1}{4}$                   | "       | 5,  | "   | 8.    | "      |
| Part of NE $\frac{1}{4}$                            |         |     |     |       |        |
| NW $\frac{1}{4}$                                    | "       | 8,  | "   | 15.   | "      |

|                                     |   |     |   |       |
|-------------------------------------|---|-----|---|-------|
| Part of NE $\frac{1}{4}$            |   |     |   |       |
| NW $\frac{1}{4}$                    | " | 8,  | " | 8.    |
| Part of NE $\frac{1}{4}$            |   |     |   |       |
| NW $\frac{1}{4}$                    | " | 8,  | " | 38.   |
| SW $\frac{1}{4}$ SW $\frac{1}{4}$   | " | 3,  | " | 35.   |
| SE $\frac{1}{4}$ SE $\frac{1}{4}$   | " | 3,  | " | 34.   |
| SE $\frac{1}{4}$ SW $\frac{1}{4}$   | " | 3,  | " | 35.   |
| SW $\frac{1}{4}$ SE $\frac{1}{4}$   | " | 3,  | " | 40.   |
| SE $\frac{1}{4}$ SW $\frac{1}{4}$   | " | 3,  | " | 36.00 |
| SW $\frac{1}{4}$ SW $\frac{1}{4}$   | " | 3,  | " | 35.   |
| SE $\frac{1}{4}$ SE $\frac{1}{4}$   | " | 3,  | " | 34.   |
| SW $\frac{1}{4}$ SE $\frac{1}{4}$   | " | 3,  | " | 40.   |
| S $\frac{1}{2}$ SW $\frac{1}{4}$    | " | 3,  | " | 80.   |
| S $\frac{1}{2}$ SW $\frac{1}{4}$    | " | 3,  | " | 80.   |
| NE $\frac{1}{4}$ NW $\frac{1}{4}$   | " | 20, | " | 40.   |
| NW $\frac{1}{4}$ NW $\frac{1}{4}$   | " | 20, | " | 40.   |
| NW $\frac{1}{4}$ SW $\frac{1}{4}$ ; |   |     |   |       |
| NE $\frac{1}{4}$ SW $\frac{1}{4}$   | " | 9,  | " | 76.3  |
| NW $\frac{1}{4}$ SW $\frac{1}{4}$   | " | 12, | " | 40.   |

All of which land is located in Township 6, South of Range 15, E. B. M.

|                                                     |             |     |     |        |
|-----------------------------------------------------|-------------|-----|-----|--------|
| SW $\frac{1}{4}$ SE $\frac{1}{4}$                   | Section 15, | and | 39. | shares |
| SE $\frac{1}{4}$ SW $\frac{1}{4}$                   | "           | 4,  | "   | 40.    |
| SE $\frac{1}{4}$ SW $\frac{1}{4}$                   | "           | 4,  | "   | 40.    |
| S $\frac{1}{2}$ NE $\frac{1}{4}$ SE $\frac{1}{4}$ ; |             |     |     |        |
| NW $\frac{1}{4}$ SE $\frac{1}{4}$                   | "           | 22, | "   | 56.    |
| NE $\frac{1}{4}$ SW $\frac{1}{4}$ ;                 |             |     |     |        |
| SE $\frac{1}{4}$ SW $\frac{1}{4}$                   | "           | 10, | "   | 30.    |
| SE $\frac{1}{4}$ SE $\frac{1}{4}$                   | "           | 22, | "   | 40.    |
| NW $\frac{1}{4}$ NW $\frac{1}{4}$                   | "           | 10, | "   | 40.    |



|                                   |   |     |   |                  |   |
|-----------------------------------|---|-----|---|------------------|---|
| NW $\frac{1}{4}$ SW $\frac{1}{4}$ | " | 23, | " | 40.              | " |
| $\frac{2}{3}$ of SW $\frac{1}{4}$ |   |     |   |                  |   |
| SE $\frac{1}{4}$                  | " | 14, | " | 26 $\frac{2}{3}$ | " |
| SE $\frac{1}{4}$ NW $\frac{1}{4}$ | " | 22, | " | 40.              | " |

All of which land is located in Township 6, South of Range 14, E. B. M.

NE $\frac{1}{4}$  SE $\frac{1}{4}$ ;

SE $\frac{1}{4}$  SE $\frac{1}{4}$  Section 31, and 80. shares

All of which land is located in Township 4, South of Range 16, E. B. M.

NE $\frac{1}{4}$  SE $\frac{1}{4}$  Section 14, and 40. shares

W $\frac{1}{2}$  NW $\frac{1}{4}$ ;

NW $\frac{1}{4}$  SW $\frac{1}{4}$  " 13, " 160. "

Lot 4 " 1, " 39.09 "

SW $\frac{1}{4}$  SW $\frac{1}{4}$ ;

SE $\frac{1}{4}$  SW $\frac{1}{4}$ ;

NW $\frac{1}{4}$  SE $\frac{1}{4}$  " 1, " 100. "

NW $\frac{1}{4}$  NW $\frac{1}{4}$  " 25, " 40. "

W $\frac{1}{2}$  NW $\frac{1}{4}$ ;

NW $\frac{1}{4}$  SW $\frac{1}{4}$  " 13, " 120. "

NE $\frac{1}{4}$  SW $\frac{1}{4}$  " 14, " 40. "

Lot 4 " 1, " 40. "

SE $\frac{1}{4}$  NW $\frac{1}{4}$  " 13, " 40. "

All of which land is located in Township 5, South of Range 14, E. B. M.

NE $\frac{1}{4}$  SW $\frac{1}{4}$ ,

Lot 3 Section 31, and 62.26 shares

All of which land is located in Township 4, South of Range 15, E. B. M.

SE $\frac{1}{4}$  SE $\frac{1}{4}$  Section 31, and 40. shares

All of which land is located in Township 5, South of Range 16, E. B. M.

E $\frac{1}{2}$  NE $\frac{1}{4}$  Section 6, and 40. shares

All of which land is located in Township 6, South of Range 16, E. B. M.

SW $\frac{1}{4}$  SE $\frac{1}{4}$  Section 25, and 35. shares

S $\frac{1}{2}$  NE $\frac{1}{4}$ ;

Lots 3-4 " 4, " 160. "

W $\frac{1}{2}$  SE $\frac{1}{4}$  " " 81.7 "

NE $\frac{1}{4}$  SW $\frac{1}{4}$ ;

SE $\frac{1}{4}$  SW $\frac{1}{4}$  " 25, " 51. "

NE $\frac{1}{4}$  NE $\frac{1}{4}$ ;

NW $\frac{1}{4}$  NE $\frac{1}{4}$  " 26, " 80. "

SE $\frac{1}{4}$  NE $\frac{1}{4}$  " " 120. "

SE $\frac{1}{4}$  NE $\frac{1}{4}$  " 26, " 120. "

Lots 3-4 " 4, " Old River

All of which land is located in Township 3, South of Range 18, E. B. M.

Lots 7, 8, 11, 12 Section 30, and 160. shares

NE $\frac{1}{4}$  SE $\frac{1}{4}$ ;

SE $\frac{1}{4}$  NE $\frac{1}{4}$  " 18, " 80. "

NE $\frac{1}{4}$  SW $\frac{1}{4}$  " 17, " 71. "

NE $\frac{1}{4}$  SE $\frac{1}{4}$ ;

W $\frac{1}{2}$  SE $\frac{1}{4}$  " 15, " 97. "

SW $\frac{1}{4}$  SE $\frac{1}{4}$  " 19, " 39. "

SE $\frac{1}{4}$  SE $\frac{1}{4}$  " 19, " 16. "

SE $\frac{1}{4}$  " 35, " 150. "

NW $\frac{1}{4}$  SE $\frac{1}{4}$  " 30, " 40. "

SE $\frac{1}{4}$  SE $\frac{1}{4}$  " 30, " 40. "

Lots 1, 2, 5, 6 " 30, " 160. "

|                                    |   |     |   |       |   |
|------------------------------------|---|-----|---|-------|---|
| SE $\frac{1}{4}$ SE $\frac{1}{4}$  | " | 15, | " | 39.00 | " |
| NW $\frac{1}{4}$ SE $\frac{1}{4}$  | " | 30, | " | 40.   | " |
| S $\frac{1}{2}$ NE $\frac{1}{4}$   | " | 30, | " | 59.   | " |
| W $\frac{1}{2}$ SE $\frac{1}{4}$ ; |   |     |   |       |   |
| NE $\frac{1}{4}$ SE $\frac{1}{4}$  | " | 15, | " | 99.   | " |

All of which land is located in Township 3, South of Range 19, E. B. M.

|                                     |             |     |      |        |  |
|-------------------------------------|-------------|-----|------|--------|--|
| SW $\frac{1}{4}$ NW $\frac{1}{4}$ ; |             |     |      |        |  |
| W $\frac{1}{2}$ SW $\frac{1}{4}$    | Section 30, | and | 120. | shares |  |
| SE $\frac{1}{4}$ SW $\frac{1}{4}$   | "           | "   | 125. | "      |  |

All of which land is located in Township 3, South of Range 20, E. B. M.

|                                   |             |     |     |        |   |
|-----------------------------------|-------------|-----|-----|--------|---|
| NW $\frac{1}{4}$ SE $\frac{1}{4}$ | Section 32, | and | 26. | shares |   |
| SE $\frac{1}{4}$ NW $\frac{1}{4}$ | "           | 32, | "   | 40.    | " |
| NE $\frac{1}{4}$ SE $\frac{1}{4}$ | "           | 34, | "   | 40.    | " |
| NE $\frac{1}{4}$ NW $\frac{1}{4}$ | "           | 34, | "   | 40.    | " |
| SW $\frac{1}{4}$ SE $\frac{1}{4}$ | "           | 34, | "   | 40.    | " |
| SW $\frac{1}{4}$ SE $\frac{1}{4}$ | "           | 34, | "   | 40.    | " |
| SW $\frac{1}{4}$ SE $\frac{1}{4}$ | "           | 34, | "   | 40.    | " |
| SW $\frac{1}{4}$ SE $\frac{1}{4}$ | "           | 34, | "   | 40.    | " |
| SW $\frac{1}{4}$ SE $\frac{1}{4}$ | "           | 34, | "   | 40.    | " |
| SW $\frac{1}{4}$ SE $\frac{1}{4}$ | "           | 34, | "   | 40.    | " |
| NE $\frac{1}{4}$ NE $\frac{1}{4}$ | "           | 34, | "   | 40.    | " |
| S $\frac{1}{2}$ SW $\frac{1}{4}$  | "           | 34, | "   | 160.   | " |
| S $\frac{1}{2}$ SE $\frac{1}{4}$  | "           | 33, | "   | 160.   | " |
| NE $\frac{1}{4}$ NE $\frac{1}{4}$ | "           | 35, | "   | 34.    | " |
| SE $\frac{1}{4}$ SW $\frac{1}{4}$ | "           | 27, | "   | 40.    | " |

All of which land is located in Township 4, South of Range 16, E. B. M.

|                                                   |         |        |   |  |
|---------------------------------------------------|---------|--------|---|--|
| SW $\frac{1}{4}$ SW $\frac{1}{4}$ ;               |         |        |   |  |
| NW $\frac{1}{4}$ SW $\frac{1}{4}$ Section 22, and | 80.     | shares |   |  |
| NE $\frac{1}{4}$ SW $\frac{1}{4}$ ;               |         |        |   |  |
| Lot 3                                             | " 31, " | 47.    | " |  |
| NE $\frac{1}{4}$ SW $\frac{1}{4}$ ;               |         |        |   |  |
| Lot 3                                             | " 31, " | 47.    | " |  |
| Lot 2                                             | " 31, " | 41.45  | " |  |
| N $\frac{1}{2}$ NE $\frac{1}{4}$                  | " 33, " | 160.   | " |  |
| W $\frac{1}{2}$ SE $\frac{1}{4}$                  | " 28, " | 151.   | " |  |
| N $\frac{1}{2}$ SW $\frac{1}{4}$                  | " 29, " | 80.    | " |  |
| NW $\frac{1}{4}$ NE $\frac{1}{4}$                 | " 27, " | 37.    | " |  |
| SW $\frac{1}{4}$ NE $\frac{1}{4}$ ;               |         |        |   |  |
| NW $\frac{1}{4}$ NE $\frac{1}{4}$                 | " 32 "  | 40.    | " |  |
| N $\frac{1}{2}$ SW $\frac{1}{4}$                  | " 29, " | 160.   | " |  |
| NW $\frac{1}{4}$ NE $\frac{1}{4}$                 | " 27, " | 40.    | " |  |

All of which land is located in Township 4, South of Range 17, E. B. M.

|                                                  |         |        |   |  |
|--------------------------------------------------|---------|--------|---|--|
| NE $\frac{1}{4}$ SE $\frac{1}{4}$ Section 1, and | 35.88   | shares |   |  |
| SE $\frac{1}{4}$ NE $\frac{1}{4}$ ;              |         |        |   |  |
| SW $\frac{1}{4}$ NE $\frac{1}{4}$                | " 12, " | 69.    | " |  |

All of which land is located in Township 4, South of Range 18, E. B. M.

|                                                   |         |        |   |  |
|---------------------------------------------------|---------|--------|---|--|
| SE $\frac{1}{4}$ SE $\frac{1}{4}$ Section 22, and | 40.     | shares |   |  |
| SE $\frac{1}{4}$ NW $\frac{1}{4}$                 | " 30, " | 32.    | " |  |
| NW $\frac{1}{4}$ NW $\frac{1}{4}$                 | " 11 "  | 40.    | " |  |
| N $\frac{1}{2}$ NE $\frac{1}{4}$ ;                |         |        |   |  |
| N $\frac{1}{2}$ NW $\frac{1}{4}$                  | " 32, " | 160.   | " |  |
| SE $\frac{1}{4}$ SE $\frac{1}{4}$ ;               |         |        |   |  |
| SW $\frac{1}{4}$ SE $\frac{1}{4}$                 | " 18, " | 61.43  | " |  |
| SE $\frac{1}{4}$                                  | " 29, " | 152.   | " |  |

|                                                                          |   |     |   |      |   |
|--------------------------------------------------------------------------|---|-----|---|------|---|
| NW $\frac{1}{4}$                                                         | " | 15, | " | 160. | " |
| NW $\frac{1}{4}$ SE $\frac{1}{4}$ ;<br>SW $\frac{1}{4}$ SE $\frac{1}{4}$ | " | 24, | " | 80.  | " |
| NE $\frac{1}{4}$ SW $\frac{1}{4}$ ;<br>NW $\frac{1}{4}$ SE $\frac{1}{4}$ | " | 9,  | " | 74.  | " |
| SW $\frac{1}{4}$ NW $\frac{1}{4}$                                        | " | 17, | " | 36.  | " |
| SE $\frac{1}{4}$ SE $\frac{1}{4}$                                        | " | 22, | " | 40.  | " |
| SE $\frac{1}{4}$ NW $\frac{1}{4}$ ;<br>SW $\frac{1}{4}$ NE $\frac{1}{4}$ | " | 32, | " | 80.  | " |
| NW $\frac{1}{4}$                                                         | " | 14, | " | 160. | " |
| SE $\frac{1}{4}$ NW $\frac{1}{4}$                                        | " | 1,  | " | 40.  | " |
| Lot 1; NE $\frac{1}{4}$<br>NW $\frac{1}{4}$                              | " | 31, | " | 92.  | " |
| NW $\frac{1}{4}$ SE $\frac{1}{4}$                                        | " | 1,  | " | 40.  | " |
| N $\frac{1}{2}$ NE $\frac{1}{4}$                                         | " | 17, | " | 80.  | " |
| NW $\frac{1}{4}$ NE $\frac{1}{4}$                                        | " | 9,  | " | 17.  | " |
| Lot 6                                                                    | " | 6,  | " | 54.  | " |
| SW $\frac{1}{4}$ SE $\frac{1}{4}$                                        | " | 12, | " | 40.  | " |
| W $\frac{1}{2}$ NW $\frac{1}{4}$                                         | " | 33, | " | 80.  | " |
| NW $\frac{1}{4}$ NE $\frac{1}{4}$                                        | " | 19, | " | 34.  | " |
| SW $\frac{1}{4}$ SE $\frac{1}{4}$                                        | " | 22, | " | 40.  | " |
| NW $\frac{1}{4}$ NE $\frac{1}{4}$                                        | " | 30, | " | 40.  | " |
| SW $\frac{1}{4}$ SE $\frac{1}{4}$ ;<br>E $\frac{1}{2}$ SW $\frac{1}{4}$  | " | 19, | " | 160. | " |
| NW $\frac{1}{4}$ NW $\frac{1}{4}$                                        | " | 20, | " | 40.  | " |
| S $\frac{1}{2}$ SW $\frac{1}{4}$                                         | " | 17, | " | 115. | " |
| W $\frac{1}{2}$ SW $\frac{1}{4}$                                         | " | 15, | " | 80.  | " |
| NE $\frac{1}{4}$ NE $\frac{1}{4}$                                        | " | 32, | " | 38.  | " |
| N $\frac{1}{2}$ NW $\frac{1}{4}$                                         | " | 27, | " | 80.  | " |
| SE $\frac{1}{4}$ NW $\frac{1}{4}$                                        | " |     | " | 83.9 | " |

|                                     |   |     |   |       |   |
|-------------------------------------|---|-----|---|-------|---|
| SW $\frac{1}{4}$ NE $\frac{1}{4}$   | " | 11, | " | 37.   | " |
| SE $\frac{1}{4}$ NE $\frac{1}{4}$   | " | 11, | " | 40.   | " |
| NE $\frac{1}{4}$ NE $\frac{1}{4}$   | " | 19, | " | 35.96 | " |
| SE $\frac{1}{4}$ NW $\frac{1}{4}$   | " | 23, | " | 40.   | " |
| W $\frac{1}{2}$ NE $\frac{1}{4}$    | " | 12, | " | 80.   | " |
| NW $\frac{1}{4}$ NW $\frac{1}{4}$   | " | 17, | " | 40.   | " |
| NW $\frac{1}{4}$ NW $\frac{1}{4}$   | " | 14, | " | 36.   | " |
| Lots 2-3                            | " | 7,  | " | 97.   | " |
| NE $\frac{1}{4}$ NE $\frac{1}{4}$ ; |   |     |   |       |   |
| NW $\frac{1}{4}$ NE $\frac{1}{4}$   | " | 7,  | " | 80.   | " |
| NW $\frac{1}{4}$ NE $\frac{1}{4}$ ; |   |     |   |       |   |
| SW $\frac{1}{4}$ NE $\frac{1}{4}$   | " | 31, | " | 76.   | " |
| SE $\frac{1}{4}$ SE $\frac{1}{4}$ ; |   |     |   |       |   |
| SW $\frac{1}{4}$ SE $\frac{1}{4}$   | " | 28, | " | 78.   | " |
| SE $\frac{1}{4}$ NE $\frac{1}{4}$   | " | 20, | " | 40.   | " |
| SE $\frac{1}{4}$ SE $\frac{1}{4}$   | " | 21, | " | 38.   | " |
| S $\frac{1}{2}$ SE $\frac{1}{4}$    | " | 28, | " | 80.   | " |
| NW $\frac{1}{4}$                    | " | 14, | " | 160.  | " |
| NE $\frac{1}{4}$ NE $\frac{1}{4}$   | " | 25, | " | 11.   | " |
| E $\frac{1}{2}$ SW $\frac{1}{4}$ ;  |   |     |   |       |   |
| SW $\frac{1}{4}$ SE $\frac{1}{4}$   | " | 19, | " | 120.  | " |
| NW $\frac{1}{4}$ NE $\frac{1}{4}$   | " | 30, | " | 40.   | " |
| S $\frac{1}{2}$ NW $\frac{1}{4}$    | " | 14, | " | 76.   | " |
|                                     | " | 7,  | " |       | " |
| SE $\frac{1}{4}$ NW $\frac{1}{4}$   | " | 25, | " | 40.   | " |
| NE $\frac{1}{4}$ SW $\frac{1}{4}$ ; |   |     |   |       |   |
| NW $\frac{1}{4}$ SE $\frac{1}{4}$   | " | 12, | " | 80.   | " |
| Lot 2                               | " | 6,  | " | 37.   | " |
| NE $\frac{1}{4}$ SW $\frac{1}{4}$   | " | 10, | " | 40.   | " |

All of which land is located in Township 4, South

of Range 19, E. B. M.

|                                     |                 |       |        |
|-------------------------------------|-----------------|-------|--------|
| SE $\frac{1}{4}$ SW $\frac{1}{4}$   | Section 18, and | 34.   | shares |
| E $\frac{1}{2}$ NW $\frac{1}{4}$    | " 18, "         | 80.   | "      |
| E $\frac{1}{2}$ SW $\frac{1}{4}$    | " 7, "          | 102.  | "      |
| SW $\frac{1}{4}$ SW $\frac{1}{4}$   | " 18, "         | 46.   | "      |
| NE $\frac{1}{4}$ NW $\frac{1}{4}$ ; |                 |       |        |
| Lot 1                               | " 7, "          | 86.95 | "      |
| SE $\frac{1}{4}$ SW $\frac{1}{4}$ ; |                 |       |        |
| Lot 4                               | " 6, "          | 81.87 | "      |
| NW $\frac{1}{4}$ SE $\frac{1}{4}$   | " 18, "         | 38.   | "      |

All of which land is located in Township 4, South of Range 20, E. B. M.

|                                     |                |        |        |
|-------------------------------------|----------------|--------|--------|
| SE $\frac{1}{4}$ SW $\frac{1}{4}$   | Section 3, and | 40.    | shares |
| S $\frac{1}{2}$ SE $\frac{1}{4}$    | " 5, "         | 80.    | "      |
| S $\frac{1}{2}$ SE $\frac{1}{4}$    | " 3, "         | 80.    | "      |
| SW $\frac{1}{4}$ NE $\frac{1}{4}$ ; |                |        |        |
| NW $\frac{1}{4}$ SE $\frac{1}{4}$   | " 2, "         | 80.    | "      |
| SE $\frac{1}{4}$ NE $\frac{1}{4}$   | " 12, "        | 40.    | "      |
| SW $\frac{1}{4}$ NE $\frac{1}{4}$ ; |                |        |        |
| Lots 1-2                            | " 5, "         | 119.84 | "      |

All of which land is located in Township 5, South of Range 16, E. B. M.

|                                     |                 |     |        |
|-------------------------------------|-----------------|-----|--------|
| W $\frac{1}{2}$ SE $\frac{1}{4}$    | Section 11, and | 60. | shares |
| SW $\frac{1}{4}$ SW $\frac{1}{4}$   | " 11, "         | 40. | "      |
| NE $\frac{1}{4}$ SE $\frac{1}{4}$   | " 5, "          | 34. | "      |
| NW $\frac{1}{4}$ SE $\frac{1}{4}$   | " 4, "          | 39. | "      |
| NE $\frac{1}{4}$ NE $\frac{1}{4}$ ; |                 |     |        |
| SE $\frac{1}{4}$ NE $\frac{1}{4}$   | " 9, "          | 80. | "      |
| NE $\frac{1}{4}$ SW $\frac{1}{4}$   | " 1, "          | 40. | "      |
| NW $\frac{1}{4}$ SW $\frac{1}{4}$ ; |                 |     |        |

|                                     |   |     |   |        |   |
|-------------------------------------|---|-----|---|--------|---|
| S $\frac{1}{2}$ SW $\frac{1}{4}$    | " | 1,  | " | 120.   | " |
| E $\frac{1}{2}$ NE $\frac{1}{4}$    | " | 9,  | " | 80.    | " |
| SW $\frac{1}{4}$ NW $\frac{1}{4}$ ; |   |     |   |        |   |
| Lots 3-4                            | " | 1,  | " | 120.36 | " |
| NE $\frac{1}{4}$ NE $\frac{1}{4}$ ; |   |     |   |        |   |
| SE $\frac{1}{4}$ NE $\frac{1}{4}$   | " | 9,  | " | 80.    | " |
| W $\frac{1}{2}$ SW $\frac{1}{4}$ ;  |   |     |   |        |   |
| NE $\frac{1}{4}$ SW $\frac{1}{4}$   | " | 11, | " | 120.   | " |
| NW $\frac{1}{4}$ NE $\frac{1}{4}$   | " | 14, | " | 36.    | " |
| NE $\frac{1}{4}$ NE $\frac{1}{4}$   | " | 12, | " | 40.    | " |
| NW $\frac{1}{4}$ SE $\frac{1}{4}$   | " | 4,  | " | 40.    | " |

All of which land is located in Township 5, South of Range 17, E. B. M.

|                                   |                 |       |        |
|-----------------------------------|-----------------|-------|--------|
| NW $\frac{1}{4}$ SE $\frac{1}{4}$ | Section 34, and | 30.72 | shares |
| SE $\frac{1}{4}$ SE $\frac{1}{4}$ | " 33, "         | 40.00 | "      |
| N $\frac{1}{2}$ of Lot 2          | " 7, "          | 20,   | "      |
| NE $\frac{1}{4}$ SW $\frac{1}{4}$ | " 34, "         | 40.   | "      |
| Lot 7                             | " 6, "          | 40.75 | "      |
| Lot 7                             | " 6, "          | 40.75 | "      |

All of which land is located in Township 5, South of Range 18, E. B. M.

SE $\frac{1}{4}$  SE $\frac{1}{4}$ ;

NE $\frac{1}{4}$  SE $\frac{1}{4}$  Section 34, and 80. shares

All of which land is located in Township 5, South of Range 19, E. B. M.

|                                     |                |       |        |
|-------------------------------------|----------------|-------|--------|
| SE $\frac{1}{4}$ SE $\frac{1}{4}$   | Section 6, and | 40.   | shares |
| NE $\frac{1}{4}$ NW $\frac{1}{4}$ ; |                |       |        |
| SE $\frac{1}{4}$ NW $\frac{1}{4}$   | " 17, "        | 69.60 | shares |
| SE $\frac{1}{4}$ NW $\frac{1}{4}$ ; |                |       |        |
| NE $\frac{1}{4}$ NW $\frac{1}{4}$   | " 26, "        | 80.   | "      |



|                                     |             |   |        |   |
|-------------------------------------|-------------|---|--------|---|
| NW $\frac{1}{4}$                    | Section 26, | " | 160.   | " |
| SE $\frac{1}{4}$ NW $\frac{1}{4}$   | " 4,        | " | 35.    | " |
| NW $\frac{1}{4}$ SE $\frac{1}{4}$   | " 24,       | " | 40.    | " |
| SW $\frac{1}{4}$ NE $\frac{1}{4}$   | " 3,        | " | 11.    | " |
| SE $\frac{1}{4}$ NW $\frac{1}{4}$   | " 3,        | " | 24.    | " |
| SW $\frac{1}{4}$ SW $\frac{1}{4}$   | " 8,        | " | 40.    | " |
| NW $\frac{1}{4}$ NE $\frac{1}{4}$   | " 22,       | " | 40.    | " |
| W $\frac{1}{2}$ SE $\frac{1}{4}$    | " 21,       | " | 80.    | " |
| E $\frac{1}{2}$ SW $\frac{1}{4}$ ;  |             |   |        |   |
| SW $\frac{1}{4}$ SE $\frac{1}{4}$   | " 25,       | " | 120.   | " |
| N $\frac{1}{2}$ SE $\frac{1}{4}$    | " 35,       | " | 80.    | " |
| SE $\frac{1}{4}$ SW $\frac{1}{4}$   | " 11,       | " | 98.    | " |
| SE $\frac{1}{4}$ SE $\frac{1}{4}$   | " 10,       | " | 80.    | " |
| SE $\frac{1}{4}$ NE $\frac{1}{4}$   | " 11,       | " | 16.    | " |
| NE $\frac{1}{4}$ SW $\frac{1}{4}$   | " 35,       | " | 40.    | " |
| S $\frac{1}{2}$ SE $\frac{1}{4}$    | " 17,       | " | 73.51  | " |
| N $\frac{1}{2}$ SW $\frac{1}{4}$    | " 23,       | " | 80.    | " |
| SW $\frac{1}{4}$ NE $\frac{1}{4}$ ; |             |   |        |   |
| NW $\frac{1}{4}$ NE $\frac{1}{4}$   | " 25,       | " | 77.    | " |
| E $\frac{1}{2}$ NW $\frac{1}{4}$    | " 10,       | " | 72.67  | " |
| E $\frac{1}{2}$ SE $\frac{1}{4}$    | " 13,       | " | 80.    | " |
| SE $\frac{1}{4}$ NW $\frac{1}{4}$   | " 14,       | " | 40.    | " |
| NE $\frac{1}{4}$ SE $\frac{1}{4}$   | " 11,       | " | 40.    | " |
| S $\frac{1}{2}$ SE $\frac{1}{4}$    | " 34        | " | 80.    | " |
| Lots 1-2-3                          | " 6,        | " | 133.47 | " |
| SW $\frac{1}{4}$ NE $\frac{1}{4}$   | " 17,       | " | 39.00  | " |
| NW $\frac{1}{4}$ SE $\frac{1}{4}$   | " 25,       | " | 40.    | " |
| NW $\frac{1}{4}$ SE $\frac{1}{4}$   | " 15,       | " | 40.    | " |
| SW $\frac{1}{4}$ NW $\frac{1}{4}$   | " 14,       | " | 40.    | " |
| NE $\frac{1}{4}$ NW $\frac{1}{4}$   | " 8,        | " | 40.    | " |

|                                     |         |     |     |       |        |
|-------------------------------------|---------|-----|-----|-------|--------|
| NE $\frac{1}{4}$ SW $\frac{1}{4}$ ; |         |     |     |       |        |
| SE $\frac{1}{4}$ SW $\frac{1}{4}$   | "       | 5,  | "   | 80.   | "      |
| SW $\frac{1}{4}$ SW $\frac{1}{4}$ ; |         |     |     |       |        |
| SE $\frac{1}{4}$ SW $\frac{1}{4}$   | Section | 23, | and | 80.   | shares |
| SW $\frac{1}{4}$ SW $\frac{1}{4}$   | "       | 25, | "   | 40.   | "      |
| SW $\frac{1}{4}$ NE $\frac{1}{4}$ ; |         |     |     |       |        |
| SE $\frac{1}{4}$ NE $\frac{1}{4}$   | "       | 6,  | "   | 80.   | "      |
| NE $\frac{1}{4}$ NE $\frac{1}{4}$ ; |         |     |     |       |        |
| SE $\frac{1}{4}$ NE $\frac{1}{4}$   | "       | 15, | "   | 65.   | "      |
| SE $\frac{1}{4}$ SW $\frac{1}{4}$ ; |         |     |     |       |        |
| SW $\frac{1}{4}$ SE $\frac{1}{4}$   | "       | 15, | "   | 75.   | "      |
| NE $\frac{1}{4}$ SW $\frac{1}{4}$ ; |         |     |     |       |        |
| NW $\frac{1}{4}$ SW $\frac{1}{4}$   | "       | 24, | "   | 80.   | "      |
| NW $\frac{1}{4}$ SW $\frac{1}{4}$   | "       | 22, | "   | 40.   | "      |
| SE $\frac{1}{4}$ NE $\frac{1}{4}$   | "       | 27, | "   | 40.   | "      |
| SW $\frac{1}{4}$ NW $\frac{1}{4}$   | "       | 24, | "   | 40.   | "      |
| NE $\frac{1}{4}$                    | "       | 26, | "   | 138.  | "      |
| Lot 1                               | "       | 7,  | "   | 48.   | "      |
| SE $\frac{1}{4}$ SE $\frac{1}{4}$   | "       | 11, | "   | 33.95 | "      |
| SE $\frac{1}{4}$ SE $\frac{1}{4}$   | "       | 14, | "   | 40.   | "      |
| SW $\frac{1}{4}$ SW $\frac{1}{4}$ ; |         |     |     |       |        |
| SE $\frac{1}{4}$ SW $\frac{1}{4}$   | "       | 13, | "   | 80.   | "      |
| SW $\frac{1}{4}$ SE $\frac{1}{4}$   | "       | 13, | "   | 160.  | "      |
| NE $\frac{1}{4}$ NW $\frac{1}{4}$   | "       | 14, | "   | 40.   | "      |
| SE $\frac{1}{4}$ NW $\frac{1}{4}$ ; |         |     |     |       |        |
| SW $\frac{1}{4}$ NE $\frac{1}{4}$   | "       | 24, | "   | 80.   | "      |
| NE $\frac{1}{4}$ NW $\frac{1}{4}$ ; |         |     |     |       |        |
| SE $\frac{1}{4}$ NW $\frac{1}{4}$   | "       | 21, | "   | 80.   | "      |
| SW $\frac{1}{4}$ SE $\frac{1}{4}$   | "       | 23, | "   | 40.   | "      |
| SW $\frac{1}{4}$ SE $\frac{1}{4}$ ; |         |     |     |       |        |

|                                                                          |   |     |   |     |   |
|--------------------------------------------------------------------------|---|-----|---|-----|---|
| SE $\frac{1}{4}$ SE $\frac{1}{4}$                                        | " | 34, | " | 80. | " |
| NW $\frac{1}{4}$ SE $\frac{1}{4}$                                        | " | 25, | " | 40. | " |
| NE $\frac{1}{4}$ SE $\frac{1}{4}$                                        | " | 11, | " | 40. | " |
| N $\frac{1}{2}$ SW $\frac{1}{4}$                                         | " | 10, | " | 76. | " |
| NW $\frac{1}{4}$ SW $\frac{1}{4}$                                        | " | 22, | " | 40. | " |
| SW $\frac{1}{4}$ NW $\frac{1}{4}$                                        | " | 24, | " | 40. | " |
| N $\frac{1}{2}$ SW $\frac{1}{4}$                                         | " | 24, | " | 80. | " |
| SE $\frac{1}{4}$ NE $\frac{1}{4}$                                        | " | 27, | " | 40. | " |
| NE $\frac{1}{4}$ SE $\frac{1}{4}$                                        | " | 25, | " | 40. | " |
| S $\frac{1}{2}$ NW $\frac{1}{4}$                                         | " | 25, | " | 80. | " |
| NW $\frac{1}{4}$ SE $\frac{1}{4}$                                        | " | 25, | " | 40. | " |
| SW $\frac{1}{4}$ SE $\frac{1}{4}$                                        | " | 23, | " | 40. | " |
| NE $\frac{1}{4}$ NW $\frac{1}{4}$ ;<br>SE $\frac{1}{4}$ NW $\frac{1}{4}$ | " | 21, | " | 80. | " |
| SE $\frac{1}{4}$ NW $\frac{1}{4}$ ;<br>SW $\frac{1}{4}$ NE $\frac{1}{4}$ | " | 24, | " | 80. | " |
| SE $\frac{1}{4}$ SE $\frac{1}{4}$                                        | " | 14, | " | 40. | " |
| SW $\frac{1}{4}$ SW $\frac{1}{4}$ ;<br>SE $\frac{1}{4}$ SW $\frac{1}{4}$ | " | 13, | " | 80. | " |
| SW $\frac{1}{4}$ SE $\frac{1}{4}$                                        | " |     | " | 40. | " |
| SW $\frac{1}{4}$ SE $\frac{1}{4}$                                        | " | 23, | " | 40. | " |
| N $\frac{1}{2}$ SE $\frac{1}{4}$                                         | " | 35, | " | 80. | " |
| S $\frac{1}{2}$ NW $\frac{1}{4}$                                         | " | 25, | " | 80. | " |
| SE $\frac{1}{4}$ SW $\frac{1}{4}$                                        | " | 26, | " | 40. | " |
| E $\frac{1}{2}$ NE $\frac{1}{4}$                                         | " | 8,  | " | 80. | " |
| SE $\frac{1}{4}$ NE $\frac{1}{4}$                                        | " | 14, | " | 38. | " |
| E $\frac{1}{2}$ SW $\frac{1}{4}$                                         | " | 12, | " | 80. | " |
| NE $\frac{1}{4}$ NW $\frac{1}{4}$                                        | " | 14, | " | 40. | " |
| W $\frac{1}{2}$ SW $\frac{1}{4}$                                         | " | 12, | " | 80. | " |
| S $\frac{1}{2}$ NE $\frac{1}{4}$ ;                                       |   |     |   |     |   |

|                                  |   |     |   |       |   |
|----------------------------------|---|-----|---|-------|---|
| S $\frac{1}{2}$ NW $\frac{1}{4}$ | " | 12, | " | 160.  | " |
| SE $\frac{1}{4}$                 | " | 12, | " | 20.   | " |
| Lot 4                            | " | 4,  | " | 39.91 | " |

All of which land is located in Township 6, South of Range 18, E. B. M.

|                                                     |             |     |      |        |
|-----------------------------------------------------|-------------|-----|------|--------|
| NE $\frac{1}{4}$ SE $\frac{1}{4}$                   | Section 29, | and | 40.  | shares |
| SW $\frac{1}{4}$ SW $\frac{1}{4}$                   | " 11,       | "   | 38.  | "      |
| N $\frac{1}{2}$ SE $\frac{1}{4}$                    | " 7,        | "   | 80.  | "      |
| NE $\frac{1}{4}$ NE $\frac{1}{4}$                   | " 22,       | "   | 40.  | "      |
| SE $\frac{1}{4}$ NE $\frac{1}{4}$                   | " 19        | "   | 36.  | "      |
| E $\frac{1}{2}$ SW $\frac{1}{4}$ ;                  |             |     |      |        |
| NE $\frac{1}{4}$ NW $\frac{1}{4}$                   | " 34,       | "   | 120. | "      |
| Lots 5-6                                            | " 19,       | "   | 80.  | "      |
| W $\frac{1}{2}$ NE $\frac{1}{4}$                    | " 30,       | "   | 80.  | "      |
| NW $\frac{1}{4}$ SE $\frac{1}{4}$                   | " 9,        | "   | 40.  | "      |
| NE $\frac{1}{4}$ SE $\frac{1}{4}$                   | " 3,        | "   | 40.  | "      |
| N $\frac{1}{2}$ NE $\frac{1}{4}$ ;                  |             |     |      |        |
| N $\frac{1}{2}$ NW $\frac{1}{4}$                    | " 27,       | "   | 160. | "      |
| Lot 7                                               | " 19,       | "   | 40.  | "      |
| NW $\frac{1}{4}$ NE $\frac{1}{4}$                   | " 15,       | "   | 40.  | "      |
| Lots 5-6                                            | " 7,        | "   | 80.  | "      |
| NE $\frac{1}{4}$ NW $\frac{1}{4}$ ;                 |             |     |      |        |
| NW $\frac{1}{4}$ NE $\frac{1}{4}$                   | " 11,       | "   | 62.  | "      |
| NW $\frac{1}{4}$ NW $\frac{1}{4}$                   | " 32,       | "   | 40.  | "      |
| SW $\frac{1}{4}$ NE $\frac{1}{4}$                   | " 18,       | "   | 40.  | "      |
| SW $\frac{1}{4}$ SW $\frac{1}{4}$                   | " 8,        | "   | 40.  | "      |
| SW $\frac{1}{4}$ SE $\frac{1}{4}$                   | " 8,        | "   | 40.  | "      |
| SW $\frac{1}{4}$                                    | " 28,       | "   | 160. | "      |
| N $\frac{1}{2}$ SE $\frac{1}{4}$ ; NW $\frac{1}{4}$ |             |     |      |        |
| and                                                 | " 22,       | "   |      | "      |

|                                     |   |       |      |       |   |
|-------------------------------------|---|-------|------|-------|---|
| SW $\frac{1}{4}$ NE $\frac{1}{4}$   | " | "     | 160. | "     |   |
| Lots 7-12                           | " | 31,   | "    | 80.   | " |
| S $\frac{1}{2}$ NW $\frac{1}{4}$    | " | 21,   | "    | 80.   | " |
| E $\frac{1}{2}$ SW $\frac{1}{4}$ ;  |   |       |      |       |   |
| W $\frac{1}{2}$ SW $\frac{1}{4}$    | " | 23,   | "    | 135.  | " |
| SW $\frac{1}{4}$ SE $\frac{1}{4}$   | " | 3,    | "    | 40.   | " |
| NW $\frac{1}{4}$ SE $\frac{1}{4}$   | " | 33,   | "    | 40.   | " |
| NE $\frac{1}{4}$ SW $\frac{1}{4}$   | " | 34,   | "    | 25.   | " |
| NW $\frac{1}{4}$ SE $\frac{1}{4}$   | " | 34,   | "    | 33,   | " |
| W $\frac{1}{2}$ NE $\frac{1}{4}$    | " | 21,   | "    | 80.   | " |
| SW $\frac{1}{4}$ SE $\frac{1}{4}$ ; |   |       |      |       |   |
| SE $\frac{1}{4}$ NE $\frac{1}{4}$   | " | 22,   | "    | 80.   | " |
| E $\frac{1}{2}$ SE $\frac{1}{4}$    | " |       | "    | 151.  | " |
| W $\frac{1}{2}$ SW $\frac{1}{4}$    | " | 34,   | "    | 75.   | " |
| Lots 6-7                            | " | 18,   | "    | 80.   | " |
| SW $\frac{1}{4}$ NW $\frac{1}{4}$   | " | 17,   | "    | 37.   | " |
| N $\frac{1}{2}$ NE $\frac{1}{4}$    | " | 20,   | "    | 67.   | " |
| SW $\frac{1}{4}$ NW $\frac{1}{4}$ ; |   |       |      |       |   |
| NW $\frac{1}{4}$ SW $\frac{1}{4}$   | " | 29,   | "    | 78.   | " |
| SE $\frac{1}{4}$ SW $\frac{1}{4}$   | " | 20.00 | "    | 39.00 | " |
| NE $\frac{1}{4}$ NE $\frac{1}{4}$ ; |   |       |      |       |   |
| SE $\frac{1}{4}$ NE $\frac{1}{4}$   | " | 29    | "    | 80.   | " |
| SW $\frac{1}{4}$ SE $\frac{1}{4}$ ; |   |       |      |       |   |
| SE $\frac{1}{4}$ SE $\frac{1}{4}$   | " | 10,   | "    | 80.   | " |
| NW $\frac{1}{4}$ SW $\frac{1}{4}$ ; |   |       |      |       |   |
| SW $\frac{1}{4}$ SW $\frac{1}{4}$   | " | 9,    | "    | 77.   | " |
| SW $\frac{1}{4}$ NW $\frac{1}{4}$   | " | 23,   | "    | 40.   | " |
| Lot 1                               | " | 19,   | "    | 40.   | " |
| NE $\frac{1}{4}$ NE $\frac{1}{4}$   | " | 30,   | "    | 35.   | " |
| SE $\frac{1}{4}$ NE $\frac{1}{4}$   | " | 8,    | "    | 40.   | " |

|                                   |   |     |   |        |   |
|-----------------------------------|---|-----|---|--------|---|
| SW $\frac{1}{4}$ NW $\frac{1}{4}$ | " | 9,  | " | 80.    | " |
| SE $\frac{1}{4}$ NW $\frac{1}{4}$ | " | 29, | " | 40.    | " |
| NW $\frac{1}{4}$ NE $\frac{1}{4}$ | " | 31, | " | 38.    | " |
| Lot 10                            | " | 19, | " | 27.44  | " |
| SW $\frac{1}{4}$ SE $\frac{1}{4}$ | " | 21, | " | 40.    | " |
| Lots 2-3                          | " | 30, | " | 67.55  | " |
| NW $\frac{1}{4}$ NE $\frac{1}{4}$ | " | 18, | " | 40.    | " |
| SW $\frac{1}{4}$                  | " | 23, | " | 160.   | " |
| NW $\frac{1}{4}$ SW $\frac{1}{4}$ | " | 32, | " | 40.    | " |
| Lots 10-11-12                     | " | 7,  | " | 107.01 | " |
| Lots 1-2-11-12                    | " | 7,  | " | 160.   | " |
| SE $\frac{1}{4}$ SW $\frac{1}{4}$ | " | 8,  | " | 40.    | " |
| SE $\frac{1}{4}$ NE $\frac{1}{4}$ | " | 8,  | " | 40.    | " |
| SW $\frac{1}{4}$ NW $\frac{1}{4}$ | " | 9,  | " | 40.    | " |
| NW $\frac{1}{4}$ NE $\frac{1}{4}$ | " | 18, | " | 40.    | " |
| NW $\frac{1}{4}$ NE $\frac{1}{4}$ | " | 31, | " | 40.    | " |
| SE $\frac{1}{4}$ NW $\frac{1}{4}$ | " | 29, | " | 40.    | " |
| SW $\frac{1}{4}$ SE $\frac{1}{4}$ | " | 21, | " | 40.    | " |
| NW $\frac{1}{4}$ NE $\frac{1}{4}$ | " | 31, | " | 40.    | " |
| NE $\frac{1}{4}$ SE $\frac{1}{4}$ | " | 29, | " | 35.    | " |
| Lot 10                            | " | 19, | " | 40.    | " |
| Lot 3                             | " | 30, | " | 40.    | " |
| Lots 5-6                          | " | 7,  | " | 80.    | " |
| NE $\frac{1}{4}$ NE $\frac{1}{4}$ | " | 32, | " | 40.    | " |
| SE $\frac{1}{4}$ NE $\frac{1}{4}$ | " | 21, | " | 40.    | " |
| SW $\frac{1}{4}$ NW $\frac{1}{4}$ | " | 22, | " | 50.    | " |
| SW $\frac{1}{4}$ SE $\frac{1}{4}$ | " | 33, | " | 28.    | " |
| W $\frac{1}{2}$ SW $\frac{1}{4}$  | " | 33, | " | 80.    | " |
| SE $\frac{1}{4}$ NW $\frac{1}{4}$ | " |     |   |        |   |
| SW $\frac{1}{4}$ NE $\frac{1}{4}$ | " | 27, | " | 80.    | " |

|                                     |   |     |      |     |   |
|-------------------------------------|---|-----|------|-----|---|
| NW $\frac{1}{4}$ SE $\frac{1}{2}$   | " | "   | 120. | "   |   |
| NW $\frac{1}{4}$ SW $\frac{1}{4}$   | " | 32, | "    | 40. | " |
| NW $\frac{1}{4}$ NE $\frac{1}{4}$   | " | 18, | "    | 40. | " |
| SW $\frac{1}{4}$ NW $\frac{1}{4}$ ; |   |     |      |     |   |
| NW $\frac{1}{4}$ NW $\frac{1}{4}$   | " | 11, | "    | 76. | " |

All of which land is located in Township 6, South of Range 19, E. B. M.

|                                     |             |     |     |        |
|-------------------------------------|-------------|-----|-----|--------|
| NE $\frac{1}{4}$ NW $\frac{1}{4}$   | Section 12, | and | 40  | shares |
| SE $\frac{1}{4}$ SW $\frac{1}{4}$   | " 1,        | "   | 40. | "      |
| NW $\frac{1}{4}$ SE $\frac{1}{4}$ ; |             |     |     |        |
| NE $\frac{1}{4}$ SW $\frac{1}{4}$   | " 11,       | "   | 80. | "      |
| NE $\frac{1}{4}$ SW $\frac{1}{4}$ ; |             |     |     |        |
| SE $\frac{1}{4}$ NW $\frac{1}{4}$   | " 1,        | "   | 80. | "      |

All of which land is located in Township 7, South of Range 18, E. B. M.

|                                     |            |     |       |        |   |
|-------------------------------------|------------|-----|-------|--------|---|
| SE $\frac{1}{4}$ NW $\frac{1}{4}$ ; |            |     |       |        |   |
| Lot 3                               | Section 2, | and | 55.51 | shares |   |
| SW $\frac{1}{4}$ NW $\frac{1}{4}$   | "          | 3,  | "     | 40.    | " |
| Lots 3-4                            | "          | 3,  | "     | 39.61  | " |
| SW $\frac{1}{4}$ NE $\frac{1}{4}$   | "          | 3,  | "     | 40.    | " |
| SE $\frac{1}{4}$ NW $\frac{1}{4}$   | "          | 3,  | "     | 40.    | " |
| N $\frac{1}{2}$ SE $\frac{1}{4}$    | "          | 11, | "     | 67.    | " |
| SE $\frac{1}{4}$ SE $\frac{1}{4}$   | "          | 3,  | "     | 40.    | " |
| SE $\frac{1}{4}$ NW $\frac{1}{4}$   | "          | 3,  | "     | 40.    | " |
| NW $\frac{1}{4}$ SW $\frac{1}{4}$ ; |            |     |       |        |   |
| NE $\frac{1}{4}$ SW $\frac{1}{4}$   | "          | 3,  | "     | 55.    | " |
| N $\frac{1}{2}$ SE $\frac{1}{4}$    | "          | 3,  | "     | 80.    | " |

All of which land is located in Township 7, South of Range 19, E. B. M.

That all persons purchasing water for the lands aforesaid, or shares of stock in said Big Wood River Reservoir & Canal Company, from and after this date, must take said stock with due notice of the pendency of said action, and that in case the said plaintiffs prevail in said action, that then and in that instance, they may be deprived of the rights and benefits which would otherwise accrue to them by virtue of their ownership in such shares of stock of the Big Wood River Reservoir & Canal Company, Limited, and be deprived of the use of any and all water secured from said source.

W. G. BISSELL,

*Attorney for the Plaintiffs.*

STATE OF IDAHO, )

) ss.

Lincoln County )

On this 7th day of December, 1917, before me the undersigned, a Notary Public in and for said County and State, personally appeared W. G. Bissell, personally known to me to be the person who executed the above and foregoing instrument of writing and acknowledged to me that he executed the same, as the attorney for the Plaintiffs in the above entitled action.

IN WITNESS WHEREOF, I have hereto set my hand and affixed my official seal, the day and year in this certificate first above written.

J. H. HELMAN,

*Notary Public.*



Filed for record at the request of W. G. Bissell,  
Dec. 11, 1917, at 2:30 P. M.

C. L. MILLER,  
*Ex-Officio Recorder.*

Filed March 21, 1921.

W. D. McREYNOLDS, Clerk.

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(Title of Court and Cause.)

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STATEMENT OF THE EVIDENCE UNDER  
EQUITY RULE NO. 75.

BE IT REMEMBERED, This cause came regularly on for trial before the Court sitting in equity, on February 23, 1920, on the Bill of Complaint of plaintiffs and the Answer thereto of the defendants, and on the Complaint in Intervention of the State of Idaho and the Answer of defendants thereto. W. G. Bissell, esquire, W. T. Stafford, esquire and Karl Paine, esquire, appearing for the plaintiffs, and Messrs. Walters & Hodgin, and Benjamin W. Oppenheim, esquire, appearing for the defendants and Dean Driscoll, esquire, Assistant Attorney General, appearing for the State of Idaho as intervenor.

WHEREUPON the following proceedings were had:

Statements were made by W. G. Bissell, esquire, E. A. Walters, esquire, and Dean Driscoll, esquire, as to the facts alleged and issues raised by the pleadings, and after a further statement by Mr. Bissell as to the facts alleged and issues raised by

the Bill of Complaint, the following colloquy occurred:

THE COURT: That raises the question as to whether Mr. Walters is correct in his construction of your pleadings. As I understand, the proposition contended for by him is that your pleadings admit, either affirmatively allege or impliedly admit that there is enough water there to furnish something over 70,000 acres of land at the rate of five-eighths of a second foot of water for fifty acres, flowing continuously during the irrigation season.

MR. BISSELL: A 153 day irrigation season.

THE COURT: Now, the balance of his argument is—

MR. BISSELL: But in this matter, Your Honor, I take it this is purely an equitable suit, and we have asked for general relief, and under that request that the Court is authorized to grant any relief that he might—

THE COURT: That isn't a question of relief. It is a question of issues of fact. If you allege that there is enough water available for a delivery of a certain amount continuously during the irrigation season, that would be merely an allegation of fact which you would be bound by. Now, as I understand, you either desire to withdraw from that statement in your pleading or you are putting a different construction upon it. You say that the water supply available is sufficient to deliver the contract amount continuously for the season speci-

fied, for only something between fifty and sixty thousand acres.

MR. BISSELL: That is the contract amount, Your Honor, for seven months, for the statutory irrigation season. The contract amount for the statutory irrigation season is for 56,000 acres or thereabouts. But the view that I took of this matter was this, that the Company had already oversold their capacity by approximately five thousand acres, their capacity as estimated by the State Engineer, and that in no event could the Court restrain the Company from delivering water to the acreage actually sold. That was the theory upon which I drew the complaint, the acreage already sold.

THE COURT: Yes, I understand that, but I think we should have a clear and definite understanding as to what you admit is the water supply, the actual water supply, before you enter upon the trial of the case, and I think perhaps it would be better to be understood in terms of acre feet. Now, counsel argue that you have admitted, you expressly admitted that there was water enough there to supply something like between eighty and ninety thousand acres of land, three acre feet per season. Now, suppose that I should find, if you go into the question of duty of water, suppose that I should find that notwithstanding the calls of your contract, the duty of water is less than the amount which would be supplied by a continuous flow. That would practically be a finding that the Company

has water there for more than the acreage that you contend for.

MR. BISSELL: Your Honor, as far as that allegation is concerned, I take it that we have admitted that there was water at the rate of 3.825, delivered at the farmers' headgates, for 70,000 acres, for the five months' period. That is an admission as to the amount of water available. That admission, however, I will say at this time, was made under a misapprehension, from the report of the State Engineer. But we are prepared to show that the amount of water necessary for the irrigation of what had been actually sold, that is, 75,640 acres, is such an amount as will use that entire amount of water, all the water that is available. The Court, I hope, understands the position in which I found myself at the time of drawing this pleading, that is to say, there is a certain amount of land sold, and we alleged that the Idaho Irrigation Company had oversold its capacity at that time.

THE COURT: Yes, I understand that. But now what is your position at present. That is what I am trying to get at at present, as to the water supply. What amount of water is available there is bulk, delivered at the land?

MR. BISSELL: The water in contract quantities delivered at the land for approximately 56,000 acres.

THE COURT: Well, that is involving again a conclusion of law perhaps, and certainly a conclusion of fact.

MR. BISSELL: Perhaps I don't understand the Court.

THE COURT: How many second feet of water is the system capable of delivering at the land; I mean, how many acre feet? I think perhaps you had better consider that. If you are going into the trial of the case now you would better consider that somewhat so that I will have a definite understanding as to whether there is any issue upon that question.

MR. BISSELL: There is absolutely no fixed amount of water that we can or do admit was there, at any time, because it varies and fluctuates each and every year. There is a difference in amounts of water available between 200,000 acre feet and 600,000 acre feet. However, I can answer the Court's question in this manner: For four acre feet, which is approximately the 3.825, for four acre feet delivered at the farmers' headgates, there has been an average, as we shall contend and show, for the past eight years, for 55,212 acres. I will say, however, in this connection, that in five years out of the eight the water supply has been below the average. But it has been my view of the pleadings as they stand—now, figuring on the bases of 4.5 or four and one-half acre feet net duty, there would be water for 50,000 acres only.

THE COURT: You say four and one-half acre feet?

MR. BISSELL: Yes, at the farmers' headgates.

THE COURT: There would be water for 50,000?

MR. BISSELL: That would be according to the contract amount, Your Honor. While figuring on a basis of three and one-half acre feet delivered at the farmers' headgates, there would be an average amount of water for the past eight years for 63,054 acres of land.

THE COURT: It seems to me it would be very easy to arrive at the amount of water then you contend is available, measured in terms of acre feet. If I understand you correctly, there are 225,000 acre feet available, for you say that, giving a duty of 4.5 acre feet, you can water 50,000 acres?

MR. BISSELL: Yes.

THE COURT: That would mean 225,000 acre feet of water.

MR. BISSELL: 225,000 acre feet. But it is counsel's contention, as I understand it at this time, that we have admitted that there is water for 70,000 acres of land. Now, it is my position,—if I am wrong I will be very glad to accept the opportunity to correct this matter,—it is my position that inasmuch as there has already been approximately 75,000 acres sold, that that admission was in a way immature. Now, Mr. Paine suggests that perhaps I haven't made my position clear to the Court. I have accepted as the theory in drawing this complaint the rule as laid down by the Circuit Court of Appeals in the Caldwell case, which I un-

derstand to be this, that the amount of water specified in our contract is the maximum amount which we could get under any consideration, that under the contract amount there is water for 70,000 acres. I have alleged that there was seventy-four thousand and some odd acres sold, and further allege that we require this amount of water for the proper irrigation of our land, that has already been sold. We have alleged and expect to introduce evidence that we actually require the contract amount of water.

THE COURT: Well, now, you will be held to this position; if you leave your pleadings in the present form, that is, you will be held to an implied admission, if not an express one, of the amount of water available, and if the Court finds a lower duty, or rather, a higher duty, in other words, if the Court finds that a smaller amount of water than the contract amount is sufficient for your purpose, that of course will defeat your suit, as I understand it. Now, I will not entertain any applications to amend later on. This question is brought squarely to your attention at the present time, and it wouldn't be fair to the other side to permit you to amend later on if you find you are unsuccessful on this theory, and you must decide now as to whether or not you want to stand upon that application.

After further discussion as to the issues and the effect of the proposed amendments, and the nec-

essity of bringing in additional parties, the Court further said:

THE COURT: I think I shall, in giving leave to amend, I think I shall require you gentlemen in some way definitely and affirmatively to allege the number of acre feet of water that you contend is available for the irrigation of the lands on the average, the measurement to be at the lands, as you put it, where it is delivered upon the system to the private users, that measurement to be in acre feet. It is much more definite to me and much more easily referred to, and it will avoid misapprehension.

Counsel for plaintiffs thereupon amended the Bill of Complaint by interlineation, to which no objection was made by counsel for defendants, and the Complaint in Intervention on behalf of the State of Idaho was amended by striking from the end of paragraph 7 thereof the following words: "and the intervenor therefor alleges the fact to be that there is available for distribution through the canals and irrigation works of said Idaho Irrigation Company, Limited, one-eightieth of one cubic foot of water per second of time during the irrigation season for each acre of 70,000 acres of land and no more."

Further proceedings were had as follows:

MR. BISSELL: At this time, Your Honor, we desire to stipulate as to the available water in the Big and Little Wood Rivers, and I have here cer-



tain tables which were furnished and compiled by the Idaho Irrigation Company, partially acting in conjunction with the United States government and partially in conjunction with the State, showing the flow of the Big and Little Wood Rivers, and the total amount of water available for this project from 1909 to 1917, inclusive, but with this exception, that records on the Little Wood River are unavailable for a portion of the years of 1909 and 1910; and it is stipulated and agreed that the papers referred to and which will be presently marked as an exhibit show the total amount of water available for distribution, with the exception that it is stipulated and agreed that there is no method of storing the flood waters of Little Wood River during the non-irrigating season.

MR. WALTERS: We stipulate that there is no method of storing water on Little Wood River available to the Idaho Irrigation Company during the irrigation season.

MR. BISSELL: We have two sets of figures. One shows the total inflow in second feet at the Magic reservoir; that is on Big Wood River, Your Honor; the other is the total second foot discharge of Little Wood River. The entire available water supply of this project being obtained from the natural flow of Big Wood River, the natural flow of Little Wood River, augmented by whatever water is stored in the Migic dam, and minus the old rights.

MR. WALTERS: We will stipulate that the documents and exhibit which counsel holds in his hand and has offered may be admitted, and that they show a true record of the things upon the documents about which they purport to speak.

MR. BISSELL: I want the total inflow in second feet of the Magic reservoir for 1918 and 1919.

MR. WALTERS: For 1918 the total inflow in the Magic reservoir, fitting the figure to your blue prints, was 271,124 acre feet, and the total inflow into the Magic reservoir for 1919 was 242,832.

MR. BISSELL: Now, what have you on Little Wood River?

MR. WALTERS: The total run-off of Little Wood River for the months of April, May, June, July, August, September and October, 1918, was 54,980 acre feet. In 1919 the total run-off of Little Wood River for the months of April, May, June, July and August was 34,171 acre feet, insofar as the same has been measured by the Idaho Irrigation Company. This stipulation is made subject to the figures being relevant or material in the calculation to be hereafter made by the Court, on the basis that the complaint was filed in December, 1917, the measurements asked for, which we have furnished, occurred after that time.

THE COURT: As I understand, this stipulation does not touch upon the question of how much of this water was available for the lands in the project.

MR. BISSELL: No, Your Honor. This stipulation merely goes to show the total amount of water available, that is to say, the total-run-off of both the Big and Little Wood rivers from which the Idaho Irrigation Company draws its water supply.

THE COURT: It does not show how much they got?

MR. BISSELL: It doesn't show how much they got. That is a matter that will have to go in as a matter of proof.

WHEREUPON the blue prints above referred to were fastened together as one exhibit and marked Plaintiffs' Exhibit No. 1. Said exhibits consist of tables headed "Total Inflow in Second Feet at Magic Reservoir for the Years 1909 to 1919, Both Inclusive." Commencing with the first day of February, 1909, and purporting to give the daily inflow for each day of the month of the balance of the year 1909 and for each month in the following years. The total for the eleven months in 1909 is given as 304,102 acre feet; 1910, 276,158; 1911, 277,889; 1912, 154,656; 1913, 179,159; 1914, 236,097; 1915, 93,128; 1916, 264,420; 1917, 273,638; 1918, 133,439; 1919, 234,578.

Among the blue prints constituting Plaintiffs' Exhibit No. 1 are sheets purporting to show the discharge of Little Wood River for certain periods of each year, commencing May 18, 1910, and ending August 12, 1919. The sheet for 1910 contains the following data of discharge of said river: 1910,

—May, last 13 days, 3,854 acre feet; June, 4,366 acre feet; July, 5,190 acre feet; August, 5,670 acre feet; September, 8,080 acre feet; October, 9,376 acre feet. 1911,—February to September, inclusive, and the first two days in October, total, 61,943 acre feet. 1912,—April to October, inclusive, 23,825 acre feet. 1913,—April to August, inclusive, and ten days in September, 26,932 acre feet. 1914,—April to September, inclusive, 37,003 acre feet. 1915,—April to October, inclusive, 23,459 acre feet. 1916,—March 29 to September 25, both inclusive, 36,442 acre feet. 1917,—May to October, inclusive, 42,697 acre feet. 1918,—April to October, 27,476 acre feet. 1919,—April 1 to August 12, inclusive, 31,318 acre feet.

SEWELL H. CHAPMAN, produced as a witness on behalf of plaintiff, testified as follows:

#### DIRECT EXAMINATION

By MR. BISSELL:

Boise is my residence and irrigation work is my profession. Three years ago I was water master on District 7-a of Big Wood River. Two years ago I was Special Deputy over Big and Little Wood rivers. And last year I was general waster master over Big and Little Wood rivers, and special deputy. I have become to some extent familiar with the project of the Idaho Irrigation Company. Its water supply is derived from the natural flow of Big Wood River, minus the water that the decreed users are entitled to, plus the natural flow of Lit-

the Wood River at Richfield, minus the waters that the decreed users other than those owned by the Idaho Irrigation Company are entitled to. The storage water comes from the natural flow of Big Wood River. The company has a reservoir called the Magic reservoir on Big Wood River. I have a list of priorities showing the users who have priority rights over the Idaho Irrigation Company on Big Wood River.

Paper marked Plaintiffs' Exhibit No. 2 is a record of the water rights on Big Wood River from the Magic reservoir down. It shows the priorities over the Idaho Irrigation Company and also the old river right of the Idaho Irrigation Company. It is the record I used in the delivery of water to the users on the stream.

Paper referred to is introduced in evidence as Plaintiffs' Exhibit No. 2, and is entitled "Big Wood River Decree and Permits Below Magic Reservoir" and shows the number of the canal through which the water is diverted, the name of the present owner of the right, the name of the party to whom the right was decreed, the date of the priority of the right, the number of inches decreed with each right to which the right is entitled, and columns giving the accumulated total in second feet owned by the Idaho Irrigation Company and by others. Said Exhibit also contains the list of the canals and the amount of water decreed for each, and the names of the present owners of said canals, and

other data. Also a list entitled "Little Wood River Decree and Permits Below Dietrich Diversion."

I know of no other source of supply from which the Idaho Irrigation Company's system can obtain water.

R. B. McCONNELL, produced as a witness on behalf of plaintiffs, testified as follows:

**DIRECT EXAMINATION.**

By MR. BISSELL.

I am a civil engineer and reside at Gooding. I have examined Plaintiffs' Exhibit Nos. 1 and 2, and the figures as furnished by the defendants in this case. From the figures and the data contained in said exhibits I have prepared a graphic map or chart, showing the amount of water available for distribution by the Idaho Irrigation Company and to the users of old water rights. Mr. Tallman assisted me in preparing the chart. Paper marked Plaintiffs' Exhibit No. 3 for identification is one of the papers which I prepared from the data as just referred to. That chart correctly represents the amount of water available for distribution to the Idaho Irrigation Company and to the priority right users during the various years mentioned thereon; that is to say, from 1911 to 1919, inclusive.

**CROSS-EXAMINATION.**

By MR. WALTERS.

I prepared this chart from Exhibits 1 and 2. Exhibit 1 contains more years than are indicated on

the map. I was told to begin with 1911. I was told just to figure it from 1911. I believe the records before me dated back to 1909 on Big Wood River, and 1910 or part of 1910, on Little Wood River. We figured it at various duties of water. For this map the requirements for the project were based on a duty of water of 4.5 acre feet delivered at farmers' headgates, plus a distribution loss of 30%. I used no other duty on this map; I used on different duties on different maps. I believe the Idaho Irrigation Company was distributing water to its users prior to the year 1911. I could not say from my own knowledge when the dam was completed.

Map marked Plaintiffs' Exhibit No. 3 is admitted in evidence over the following objection of counsel for the defendants.

MR. WALTERS: We object to the introduction of Plaintiffs Exhibit No. 3 for the reason that the same is incomplete and misleading; in that it appears that our run-offs for different years available which were available to the witness and to plaintiffs, from which a map could have been constructed showing the available water supply for more years than the eight years upon the map, and for the further reason that the draftsman and the compiler of the map saw fit to compute a duty of water of 4.5 acre feet, which is not justified or authorized by the contracts in question or by anything that yet appears in the case.

Which objection was overruled by the Court and the exhibits allowed.

Plaintiffs' Exhibit No. 3 is as follows:

Further direct examination by Mr. Bissell:

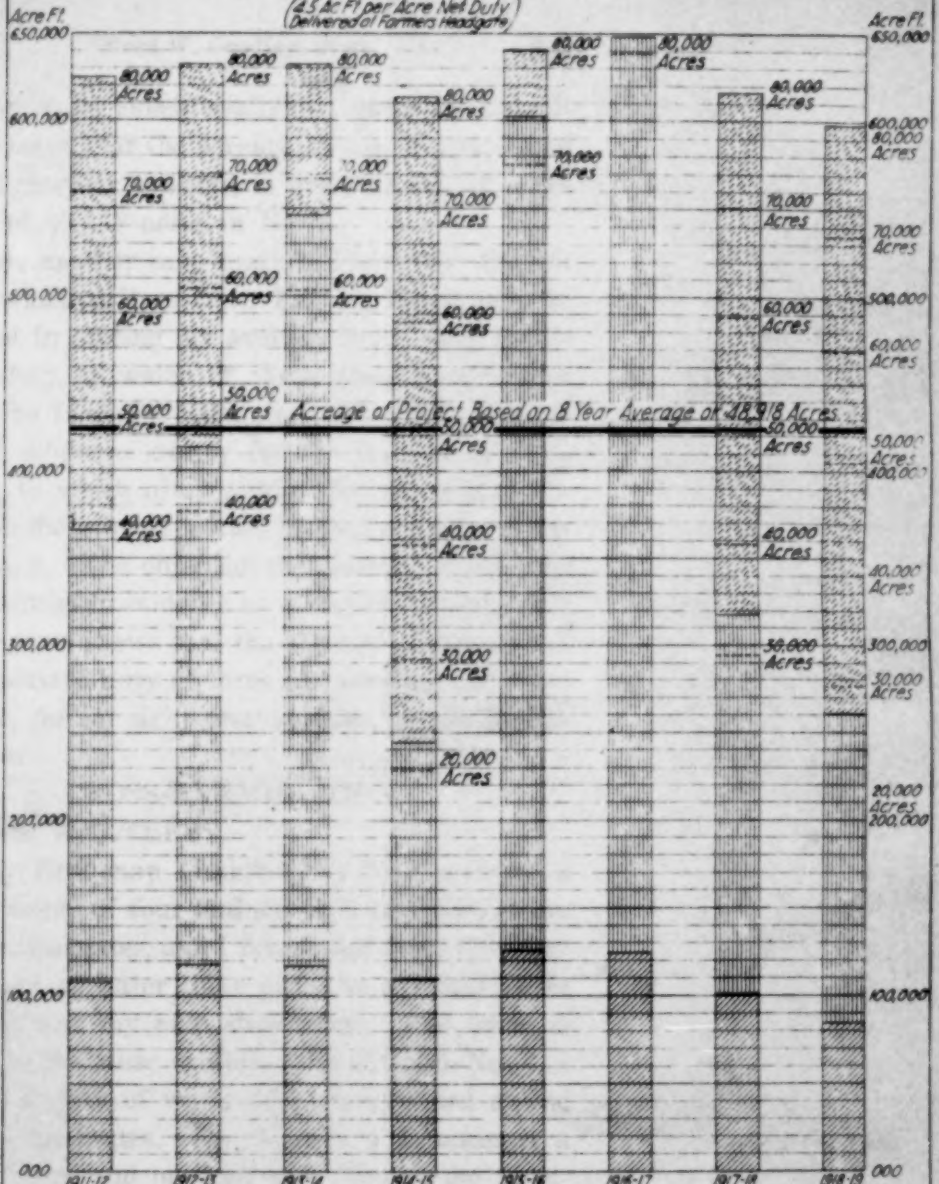
The diagonal lines at the bottom represent the total available water supply and old decreed rights owned by others than the Idaho Irrigation Company. The columns made up of vertical lines represent the total available water supply before decreed rights purchased by the Idaho Irrigation Company, and excess quantities for storage and direct diversion for the Idaho Irrigation Company's project. The lines between the diagonal lines, represented by the vertical parallel lines represent the amount of water in acre feet during each year that was available for distribution to the consumers of the Idaho Irrigation Company. The heavy white line across the page is the acreage of the project, based on an eight-year average, of the total amount in acre feet in each year.

I compiled another map marked Plaintiffs' Exhibit No. 4 from the same data, using a basis of 4 acre feet net duty of water; outside of that the maps are the same, the only difference being that I raised the average duty of water.

WHEREUPON plaintiffs offered in evidence map marked Plaintiffs' Exhibit No. 4, to which counsel for defendants objected, for the reasons heretofore urged to Exhibit No. 3, which objection was overruled, and the map admitted in evidence.



Chart Showing Total Supply of Irrigation Water Available  
in Big and Little Wood Rivers  
For Years 1911-1912 to 1918-19  
(4.5 Ac Ft per Acre Net Duty)  
(Delivered at Farmers Headquarters)



**EXPLANATION**  
 Total Available Water which includes inflow to Magic Reservoir from Now Ist to Oct 1st and flow of Little Wood River for period of Apr. 1st to Oct 1st each year.  
 Total Available water supply for old decreed rights owned by others.  
 Total Available water supply for decreed rights purchased by UICo and

Plaintiffs Exhibit No. 3  
 U.S. DISTRICT COURT  
 DISTRICT OF IOWA  
 Filed Feb. 24 1920.  
 Signed: N.D. McReynolds

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Said exhibit is substantially the same as Exhibit No. 3, except that the acreage of the project, based on an eight-year average, is given as 55,212 acres instead of 48,918 acres in No. 3.

I made another map marked Plaintiffs' Exhibit No. 5, which differs from Exhibit No. 3 only in this, that in placing my average line I used an assumed duty of water of three and one-half acre feet at the farmers' headgates. The same was offered in evidence merely for the purpose of comparison, to which offer counsel for defendants objected on the grounds stated in the objection to Exhibit No. 3. The objection was overruled, and the map admitted in evidence as Plaintiffs' Exhibit No. 5. The same shows that the acreage of the project on an assumed duty of three and one-half acre feet per acre, for an eight-year average, would be 63,054 acres.

#### CROSS-EXAMINATION.

By MR. WALTERS:

On the first map (Exhibit No. 3) I assumed a duty of water of four and one-half acre feet at the farmers' headgates, and I found that from the average supply of water there could be so many acres irrigated, and my map shows that. The same is true as to the other exhibits. On Exhibit No. 4, I assumed a duty of water of four acre feet at the farmers' headgates. On Exhibit 5 I assumed a duty of three and one-half acre feet at the farmers' headgates.

A. V. TALLMAN, witness on behalf of the plaintiffs, testified as follows:

DIRECT EXAMINATION.

By MR. BISSELL:

I reside at Meridian, Idaho, and am water master of the Boise River. I am an irrigation engineer by profession. I have followed nothing but irrigation engineering work for the last ten years. I am familiar with the Idaho Irrigation Company project. The source of its water supply is Big Wood River and another small creek that empties into the Big Wood—really dumps into the big Magic reservoir. It is two streams, comprising the supply of the Magic reservoir, and the run-off of Little Wood River during the irrigation season. There is another possible source of water supply upon which I could gather no data. I can say that there might possibly be some return flow to Little Wood River from Cottonwood coulee and another coulee to the north of Richfield, called Jim Burns slough, I believe. I have had the information contained in Plaintiffs' Exhibits 1 and 2, and Plaintiffs' Exhibits 3, 4 and 5 were made under my direction.

In making a preliminary survey of the records obtainable upon which to make an estimate of the total water supply that would be available for this project, I tried to take into consideration everything that would be of importance to not only the settlers, who are the actual farmers upon the proj-

ect, but also to the Company as well. In arriving at these totals as shown by the heavy lines at the top of the vertical hatching of each year, I took into consideration the total run-off on Big Wood River into the reservoir for the winter months entirely. I made no allowance for stock water that will probably have to be allowed to go through the reservoir on down to the old rights below during those winter months. I did that for this reason: not knowing what the return flow to the two sloughs, Cottonwood and Jim Burns, would be, and not wishing to deprive the Company of the benefits of that return flow in these calculations, I assumed that all winter water getting into Big Magic reservoir could be stored and none would be released. I did that to offset any claim that might come up in regard to the return flow through these two sloughs. Whether or not that is sufficient to cover that return flow I don't know, because I could not get the records on those two sloughs. From Exhibit 2, I believe, which is a cumulative total of the rights on Big and Little Wood River, we deducted daily throughout the entire irrigation season of each one of those years the rights that the old water users would get during that irrigation season, throwing the Idaho Irrigation Company's rights that they have purchased from the old settlers into the upper part of the diagram, that is, into the vertical part. The cross-hatching at the bottom of each column, which is represented by a diagonal line across the

chart, which shows the water rights owned by old users and the quantity of water that the old users would be entitled to each year. We have eliminated the old users whose rights would be cut off due to the failure of the stream at some time or other during the low water period. The balance of the water represented in the column, or that represented by the vertical hatching as the quantity of water available for the project during the irrigation season. That includes, as I said before,—and I want to emphasize that,—it includes all of the flow of Big Wood River into Magic reservoir during the winter months.

This total on this chart, Exhibits 3, pertains to the duty of water of four and one-half acre feet. That really means delivered at the farmers' headgates. To arrive at that, you have to have a gross duty for the project as a whole of 6.43 acre feet, deducting a thirty per cent loss, which we get from the State Engineer's report and from other people, that will be shown later. That thirty per cent loss has been used throughout all computations as a minimum loss that that project will have during any season. Thirty per cent of the 6.43 acre feet gives you a duty of four and one-half acre feet at the farmer's headgate. The solid line at the top of these columns indicates the gross amount of water available, and the computations on this sheet are based on a gross duty of 6.43 acre feet per acre,

or a net duty at the farmer's headgate of four and one-half acre feet.

Not having available the data upon which to base accurate determinations, on the daily use of water on Big or Little Wood River, it was impossible for me to show on this chart how much of the water at the top of these two big years was actually wasted over the spillway of the Magic reservoir and went to waste into Snake River. I had to leave that out, because I did not have the data on which to show it.

Q. But you do know that on each of those big years there was some waste of that kind?

A. Not of my own knowledge, I do not. I might go on to explain that these figures shown on the sides of each one of these columns here shows the height or the amount of water that would have to be available, to show the different acreages that could be included in the project on a duty of 4.5 acre feet at the farmers' headgates, or a gross duty of 6.43 acre feet total, that is, I put in the record to show at a glance just exactly the quantities they would be short for an eighty thousand acre project, or a seventy thousand or sixty thousand, fifty thousand acre project, forty thousand, thirty thousand,—that is as low as we go, I believe. That shows diagrammatically each year the shortage that would be there on that project if the acreage was any one of these during any one of these years.

In arriving at my calculations I did not take into consideration the storage capacity in the Magic reservoir. I considered that all of the water available for the total run-off each year was all available. I have assumed that the Magic reservoir with a capacity of 177,000 acre feet, would hold this, or it was diverted by the different canals before it reached the Snake River, although, according to some of the daily records, my information told me it could not be so, but that is the way it shows up. In other words, this shows that for the irrigation year of 1911 and 1912 there was 366,000 acre feet of water available that year, from which had to be subtracted approximately 100,000 acre feet belonging to the old rights, leaving available for the settlers on the Idaho Irrigation Company project 250,000 acre feet, and that explanation holds good with this chart clear through. Now, to emphasize that a little further: Anybody can readily see that the 1911 and 1912, or the season of 1912, that there could have been irrigated 40,000 acres; there was that much water available for that. This year, about 46,000; and the next year, 1913 and 1914, about 67,000; 1914 and 1915, only about 22,000; the next year, 1915 and 1916, about 74,000; 1916 and 1917, about 82,000; the years 1917 and 1918, approximately 33,000; the year 1918 and 1919, less than 30,000. So it shows at a glance just what can be done with the total available supply.



I have made a computation showing the average amount available for distribution at the farmers' headgates during and including the years 1911 and 1912, and 1918 and 1919, inclusive. It is represented by this. The total amount of water in acre feet that has been available for distribution on the average at the farmers' headgates for the eight years shown upon that map, is 220,668 acre feet, that is the average of eight years.

The reason I did not include upon this graphic map the record for 1919 and 1910 and 1910 and 1911, is that in 1909 the records are not available for the months of November and December. In 1910 the month of April is left out of Little Wood River, and I believe the month of October. And in 1911 the same thing holds true. And we begin with the fall of 1911, being the available and what I considered just records that could be obtained. I have used the water years as 1911 and 1912, 1912 and 1913, etc., due to the fact that the storage for the year 1912 comes partly from the previous winter months, November and December, of 1911. And the same on Little Wood River, the months of April, May, June and July and August and September,—the Little Wood River contributes part of its run-off to the Company project. In order to be fair on this proposition I have gone ahead and included four acre feet and three and one-half acre feet as the duty of water for the different acreages.

Th only difference between Exhibits 3 and 4 is this, that this four acre feet represents 5.7 as I remember it, acre feet gross duty, or four acre feet delivered at the farmer's headgate; that is the only difference; and shows that the average for the eight years is, 55,000 acres irrigated, against the total of 48,900 acres on the four and one-half acre foot basis. Exhibit 5 is practically the same, has the same meaning; we have gone into the same detail, to show the number of acres that could have been irrigated each year regardless of the waste that we know would occur or should have occurred from Magic reservoir into the Snake River. And that shows that the average, based on this average of three and one-half acre feet delivered or five and one-half feet gross, shows an average of 63,054 acres irrigated. In computing the number of acres of land that could be irrigated I used the irrigation year instead of the calendar year, and I figured the irrigation season from the 1st of April to October 31st, although I will say this much, that October water does not cut much ice, I don't believe.

#### CROSS-EXAMINATION.

By MR. WALTERS:

Based upon the eight-year analysis of the water supply of the Idaho Irrigation Company, I find the average to be 220,668 acre feet available to the farmer at his headgate after deducting a thirty per cent loss, and in arriving at the acreage that could be irrigated I divided these figures by the assumed

water duty. On an assumed duty of two acre feet to the acre approximately 110,000 acres could be irrigated, and on an assumed duty of two and one-half acre feet to the acre, 94,600 acres could be irrigated.

Referring to the records contained in Exhibit 1, the first year, the year 1909, insofar as the record is complete, shows an average water supply for the eight months commencing with February and ending with September, eight months, of approximately 557,000 acre feet, and based upon that record the Idaho Irrigation Company had available for irrigation during the irrigation season of the year 1909 at least 557,000 acre feet. According to the reservoir capacity, which didn't own but available for the project, the same as these two high years were, because a lot of it has to go over the waste way and into the Snake River. During the spring of 1909 the reservoir must have been full to capacity. I didn't use that in making up my map because I was fearful I wouldn't be fair to either the project or the settlers. Had I used that year on the map it would have made a difference as to where the average line would go, that would have made the average somewhat higher. The old rights should be deducted from the total of 557,000 acre feet. According to the data contained in Exhibit No. 1, the water available for the irrigation season of 1910 for project of the Idaho Irrigation Company would be 553,000 acre feet, from which should be

deducted the old rights. It would be very similar to the year 1913-14. The amount deducted for the old rights is not a fixed figure, it depends upon the station of the river. The Company owns some of the oldest rights on the river, and those are filled, and then the other old rights come in. It depends upon the station of the river. We have taken that all into consideration in computing how much the old rights are entitled to. The largest amount it takes to supply the old rights is 125,000 acre feet. Explaining the computations for 1918 and 1919, the water used by the old rights was not available, though that shown on the chart was simply for comparative purposes, and it is taken from a percentage of six years that we had and the data. The average required to supply those rights, during eight years, is approximately 100,000 to 105,000 acre feet. The gross amount available for the irrigation season of 1910 for the Idaho Irrigation project, after deducting the old rights, would be 453,000 acre feet before deducting the 30 per cent. Had that column been projected on this map it would have been practically the same as 1913 and 1914. Had I used that year my average supply would have been raised slightly. The gross amount available for the irrigation season of 1912 to the Idaho Irrigation Company is, in round numbers, 673,000 acre feet, and deducting 100,000 acre feet for the old decreed rights would leave 573,000 acre feet. Those three years would have approxi-

mated almost the highest of any of the years I have used out of the eight. The reason I did not use those three years was because I wanted to be just to the Idaho Irrigation Company and I did not have complete data as to all the water that flowed in the river, and therefore I did not use the data I did have. I think the computation I made as to the eight years was just to the Idaho Irrigation Company. I will make a calculation as to the average supply for eleven years instead of eight years based on the foregoing method of computation.

#### RE-DIRECT EXAMINATION.

By MR. BISSELL:

During the flood season and when there is water available, there are a large number of minor rights that participate for a time in the spring in the waters of both the Big and Little Wood rivers. In my computations I did not take into consideration the new rights, but only the decreed rights. The rights of the Idaho Irrigation Company have priority over these minor rights that I have mentioned.

The one thing that has kept bothering me all the time I was computing this data was the inability to get the date upon which the reservoir overflowed, and that to me was the most vital thing in this whole analysis. If I had had that for each year I would have been able to compute the acreage that the reservoir itself could have irrigated alone, separate from the natural flow of the stream.

THE COURT: I was about to ask you the ques-

tion as to whether or not in a high water year, that is, the surplus water can be conserved and carried over to a low water year, in making an average. Now, of course, if, during the very high water year, the surplus cannot be carried over to another year, that surplus could not be considered as a part of the available water supply. You, however, as I understand, cannot answer that question? You don't know?

A. It depends entirely upon the date on which the reservoir is drawn up. If the reservoir even during a high water year should be drawn upon in June, it would mean that the reservoir would be empty that year, although the total run-off would perhaps be a large quantity.

THE COURT: Q. As I understand, your map here is upon the theory and the assumption that all of the water which flows down this stream is conserved and made useful?

A. Yes, sir.

Q. And if any of that is wasted the amount would be cut down?

A. Yes, sir.

Q. And you are assuming a thirty per cent reservoir and canal loss?

A. Just transportation loss in the system.

Q. You know nothing of that of your own knowledge. That is an assumption upon your part? It may be either less or more, so far as you know?

A. Yes, sir. I have made investigations on the project for seepage losses, but not complete.

S. T. BAER, a witness on behalf of plaintiffs, testified as follows:

DIRECT EXAMINATION.

By MR. BISSELL:

I am a civil engineer and reside at Boise. I am connected with the Department of Reclamation. I have been with the State Engineer's office since April, 1915, formerly as field and examining engineer, and at present as Assistant to the Commissioner. I was assistant or field engineer during the years 1916 and 1917. As part of my official duties as field engineer of the State Engineer's office I made an examination and inspection in 1916 and 1917 of the project of the Idaho Irrigation Company. I filed a report in conjunction with others showing the conditions, the physical conditions of the Idaho Irrigation Company's project, the amount of water available, the amount of land under cultivation, and the condition and capacity of the ditches, laterals and the capacity of the reservoir.

J. H. Smith, as State Engineer, was directly in charge of the work, but I was in charge in the field and the work was done by me or under my direction. I made a report, and I have a carbon copy of it, the original is on file with the Land Board.

Carbon copy is marked Plaintiffs' Exhibit No. 6, and the same is admitted in evidence. (The report referred to will be transmitted to the Clerk of the Circuit Court of Appeals for use upon appeal, but need not be printed as part of the record on appeal unless so directed by the Circuit Court of Appeals.)

THE COURT: What is this offered for?

MR. BISSELL: This is offered for the purpose of showing the physical condition of the system, including the capacity of the reservoir, the capacities of the ditches and laterals, and the amount of water which the State Engineer found available, and for the purpose of allowing the witness to refresh his recollection in the testimony which he will give, or which I assume he will give in answer to interrogatories.

In making this report there was a partial survey made of the impounding capacity of the Magic reservoir of the Idaho Irrigation Company. We obtained the total capacity of the reservoir from the measurements made, based upon our own examinations, over and above a certain datum. At the time of going into the country to make the survey, the reservoir was partially filled, and we had no means of determining what amount was stored in the reservoir at the elevation of the water at that time. We made a survey from that level up to the spillway level and five feet in addition, caring for a five foot additional raise on the spillway. We assumed that the reservoir decreased in the same



proportion below the elevation of the water at that time as it did above; having no other data that could be accepted as official we assumed that there was a certain quantity in the reservoir, and then from our survey determined the amount that could actually be stored over and above that elevation.

By that method of computation we arrived at the figure of 176,600 acre feet as the total capacity up to the spillway level, not caring for the five foot raise placed on the spillway. We made additional computations showing the amount that might be stored if the level of the spillway was raised five feet. That would be approximately 18,000 acre feet, making a total capacity of 195,600 acre feet. I have seen the reservoir since that time and the spillway has in fact been raised that additional five feet and the storage capacity of the reservoir at this time is 195,600 acre feet. In connection with my work in examining the system of the Idaho Irrigation Company I had occasion to measure and compute the system losses in the delivery of water to the farmers' headgates. That does not include the reservoir losses, but only transmission losses.

We arrived at the losses in this way. We would take a lateral taking off of the main canal. The lateral was metered, and by that I mean the water was measured by means of a current meter at the head, thus determining the amount of water flowing in the lateral at that point. Men progressed on that lateral down each side, metering or esti-

mating any quantity that may be returned to the lateral, due to surface waste from farms or farm diversions or sublateral diversions from the main lateral. Thus at the different points the lateral was measured and losses or gain, as the case might be, was determined between certain points, and for its entire length.

That method was employed in determining the loss on each of the canals and laterals of the system as shown by my report. Table B of the report shows the result of the actual measurements and estimates of the losses in transmission, or canal losses. In arriving at the losses we took into consideration the return flow into the canals wherever there was a return flow, and we computed the net loss in transmission. The average net loss in transmission of all the canals of the Idaho Irrigation Company was 29.7 per cent. or practically thirty per cent. That represents the net loss after giving the various ditches and laterals credit for all return water that flowed back into them. We made this inspection and examination in 1916. We took no river measurements for determining the amount of water that was available for distribution throughout the system during that year. The figures used were obtained from the official publication of the U. S. G. S. Department, and also the records obtained from the Idaho Irrigation Company. The year 1916 was considered a very good water year. The reservoir was full that year. We

did not ascertain the number of acres of land under cultivation in 1916 on this project. There was a surplus of water left in the reservoir at the close of the irrigation season of 1916. We assumed it to be 60,000 acre feet left over for the irrigation season of 1917. If my memory serves me correctly the Idaho Irrigation Company ran water longer in 1916 than ordinarily, in order to accommodate our hydrographic force, because their work was not finished and water was run, as I said, for a longer period that year, in order that we could complete the data, the field work. The hydrographic work was completed. They waited running water some few days after October 5th.

#### CROSS-EXAMINATION.

By MR. WALTERS:

We had no first-hand information as to the reservoir losses. We simply permitted a certain amount to remain after our calculations were made, assuming that the amount that we left was sufficient to care for loss both by seepage, deep percolation or evaporation, in the absence of any better figure. Our calculations were figured on a reservoir loss of 12,800 acre feet. Evaporation loss was computed as 5,704 acre feet. It was based upon Government statistics, but not upon any actual test made at the reservoir site. The surface area of the reservoir varies from 940 acres to approximately 3,500 acres.

Paper marked Defendants' Exhibit No. 1 for identification is a copy of the report made by J. H.

Smith, former State Engineer, to the State Land Board of Idaho under date of November 6, 1917, pertaining to the resulting acreage that might be irrigated from this project from varying duties of water. It refers to this report made by the State Engineer in 1916 and 1917. Defendants' Exhibit No. 1 is a supplemental report to Plaintiffs' Exhibit No. 6. It was not made with that idea in view. It was made at the request of the Land Board, that such a report be made to them. The State Land Board requested the State Engineer to make such a report.

The report referred to is offered in evidence as Defendant's Exhibit No. 1, and the same was objected to by Mr. Bissell "as immaterial, being merely a mathematical computation which anyone could make, and in no sense a report of the State Engineer. Which simply divides the available amount of water by different amounts." The objection was sustained by the Court.

Q. Now, you refer in your report compiled by yourself, if not as the result of your examination or a field force over which you were the supervisor, you found that the Idaho Irrigation Company had what average maximum amount available to it for distribution to the water users, for the years that are indicated in the instrument that I referred to a while ago as Defendants' Exhibit No. 1?

MR. BISSELL: I object to his predicated any questions upon Exhibit No. 1, for the reason that the same was excluded.

THE COURT: Sustained.

I don't know, gentlemen, to what extent or for just what purpose this exhibit has been offered in evidence. I may say to you that exhibits of this kind will have very little weight with me unless it is shown they are based upon some reliable data. If it is mere speculation of the State Engineer it isn't competent for any purpose. As I understand this witness to say, this report was made up of data gathered by him and his assistants in one certain year, and I supposed that it was offered for the purpose of establishing facts that were investigated that year.

MR. WALTERS: To make our position better understood, Your Honor, part of the report which has been admitted, being Exhibit 6, reads as follows: "The result of the findings was 70,000 acres using the reservoir capacity of 177,600 acre feet, as determined by this office, with a system loss of thirty per cent. Two periods, each consisting of 153 days, were considered, leaving a balance of 12,800 acre feet in the reservoir to care for losses from seepage and evaporation. The duty of water for the 153 day period is 3.825 acre feet per acre, based on five-eighths of an inch to the acre, plus thirty per cent loss, brings the duty up to 4.973 acre feet per acre. Attempting to ascertain the one fact here, to-wit, the amount of water the gentlemen took into consideration in arriving at these figures—I will ask him the direct question.

MR. WALTERS: Q. Considering the portion of your report that I have read as part of a question by which I interrogate you as to the average amount of water, or the amount of water that you took into consideration as available when you made the statement in the report which I have read.

A. Our findings showed that, taking the average run-off of the years 1909 to 1916, inclusive, there was left available for distribution to the Idaho Irrigation Company project, after taking out the river and reservoir losses—

THE COURT: Q. How did you know what this run-off was?

A. I stated that once before, Your Honor, that we obtained that record from the best sources available, from the U. S. G. S. Department and from the Idaho Irrigation Company.

THE COURT: I don't think, gentlemen, that I will permit you to take the time here to get before me the general conclusions or speculations of the State Engineer's office. I think ultimately I shall have to make my own findings, and not be bound by the findings of any engineer, unless it is shown that those are mere conclusions from data which are reliable. Now, if this report is offered in evidence for the purpose of showing the amount of water available, it would have to be rejected. I understand that it was merely offered for the purpose of enabling this witness to refresh his memory, and that the only facts that you would contend

it would establish were those which he testified to as a witness.

MR. BISSELL: Your Honor, the purpose for which this report was offered was this, primarily, to enable this witness to refresh his recollection; second, to establish by this witness the loss in the reservoir by seepage and evaporation, and for that purpose only. Calling the Court's attention to the fact that all of these laterals were measured and that this canal loss was an absolute measured loss. We made no attempt by this witness to prove up the amount of water available, or anything of that kind.

#### CROSS-EXAMINATION.

By MR. DRISCOLL.

I am not able to say definitely at this time what geological records and what records of the Idaho Irrigation Company the report is based upon. Perhaps I can ascertain by investigation. We considered the records at that time in 1916 which were available to us from either source as authentic, because the Idaho Irrigation Company in reality, if I am correct, took all the measurements, kept all the data which were submitted to the U. S. G. S. Department, who had occasion at times to send a man in to check the stations, and the only difference between the two is that one has been published and the other has not, so that one, I believe, is just as authentic as the other.

THE COURT: Q. I am rather interested in

the question of losses. I understood you originally to say that the losses in the distributing system were computed to be 29.7, you really meant to say that was the loss in the entire system, including reservoir losses?

A. Not including reservoir loss. That was a blanket loss to the distributing system.

Q. What should be added to that, if anything, for loss in the reservoir, in percentage?

A. We cared for that in arriving at the capacity of the reservoir, and allowed so much to remain in there for reservoir losses; that is to say, if the reservoir had a capacity of ten acre feet, and we assumed that three acre feet was sufficient to care for losses, then there would remain for distribution by the Company seven acre feet, as an example. Then we based our water supply data on the seven acre feet, available at a certain period.

Q. I don't see how that is going to help us. In making a computation it will be necessary ultimately for me, if I take the total run-off of the stream, for instance, as the basis for the water supply, a part of that is delivered directly to the distributing system, the lands, as I understand, without being conserved by the reservoir, and a part of it is conserved for a certain length of time in the reservoir before it is delivered. Now ultimately, apparently I will have to know how much water is available for delivery into the distributing system, both directly from the stream and from the



reservoir, after allowing reservoir losses. Now, have you any data upon the amount of such losses in the reservoir for the irrigation year, we will say?

A. Offhand I don't know, but I am inclined to believe that I have something that will show the average date upon which the reservoir is filled and the average date that the Company begins to empty the reservoir.

THE COURT: Do you intend, Mr. Bissell, to show more specifically what these reservoir losses are, by the records of the Company?

MR. BISSELL: If we can, Your Honor. We have asked for the records, but I don't know whether we can show it or not. The only record that we have of the loss of the reservoir, reservoir loss, is such as could be acquired through the State Engineer's office.

THE COURT: Doesn't this Company keep a specific record of reservoir losses?

MR. BISSELL: I have nothing but Mr. Cage's testimony under oath, and he said that he had no means of knowledge what that was.

MR. WALTERS: This figure has been accepted as a computation by engineers both by the State and the Company, and I think by everybody else.

THE COURT: Don't you keep a record, operating record of the amount of water you receive and the amount you are able to deliver to the land?

MR. WALTERS: Yes, Your Honor.

THE COURT: Doesn't that record show how much is delivered into the reservoir and how much is taken out?

MR. WALTERS: I am not in a position to advise Your Honor on that now. This figure given here has been accepted by everybody as about the figure.

THE COURT: What figure?

MR. WALTERS: 12,800 acre feet, reservoir loss.

THE COURT: You mean for the entire year?

MR. WALTERS: Yes, Your Honor.

MR. HODGIN: That has been deducted, as I understand from this witness, from the total capacity of the reservoir.

THE COURT: Yes, but I am not interested in capacity at the present time. I am interested in knowing how much is to be deducted from the total or aggregate amount of water available, how much is to be deducted from that for reservoir and canal losses, in order to determine how much is available at the farmers' headgates. Now, if you agree upon this 12,800 acre feet as the reservoir loss for the year, then I will have definite information, but I shall have to have information upon that point in some way, or perhaps it can be shown by the Company's records. The reason I ask this is that in the other reservoir cases tried in this Court we have had definite data as to reservoir losses, showing how much has been received and how much delivered from the

reservoir. The records of the companies have shown precisely the intake and the discharge. Further with regard to the losses now in the distributing system, perhaps you have given me all the information you can upon the reservoir losses. In what condition were the canals at the time you metered the flow, as to being full below?

WITNESS: You mean as to the carrying capacity of the canal at that time?

THE COURT: Yes.

A. Or as to the physical condition of the canal?

Q. No, I mean carrying capacity. I mean as to the amount of water in the canal. Suppose the canal has a capacity of fifty second feet, when you measured it did it have twenty-five second feet in it or fifty?

A. Practically no canal at the time of our measurement was at its maximum carrying capacity.

Q. What time in the season did you make the measurement?

A. Between July 27th and August 5th.

Q. Were they running—what percentage of the carrying capacity would you say?

A. I have made no deduction, Your Honor, on that, but I can.

Q. You don't know what amount of water was being delivered through the system to the farmers' headgates at the time?

A. No, because we only dealt with a certain particular canal each day, and at the time we would go

over that canal the Company maintained that canal at a stationary head, so that there would be no variance until we had completed that one system.

Q. Of course the percentage of loss would depend very much upon the amount of water delivered at the head, would it not?

A. It would, yes, and the physical condition of the canal too.

Q. But everything else being equal, the percentage of loss would vary greatly, depending upon the amount of water delivered at the head?

A. It would.

Q. You cannot tell me how much water you computed—I mean how much in bulk was lost from the system?

A. I could not without an adding machine, I don't believe.

Q. Well, could you with an adding machine?

A. I think I could, the loss as we found it during that year; I think I can.

Q. I would like to have that data, if you understand me. The total number of acre feet that were lost in the distributing system.

A. During our examination?

Q. Yes.

A. Do you want that compared against the total amount diverted at the head of each system?

Q. Yes, I would really like to have that, but I understood you to say you did not think you could give me that.

A. Yes, I can give you the total amount metered by us at the head of every canal; but as I understood it, to give it to you the way you want it, the work would have to be started and completed in one day.

Q. No, not necessarily. It would be much easier, of course, if it were done in that way. What I am trying to get at really is what would be the percentage of loss under conditions which should prevail there when the system was fully supplying a certain amount of land. Now, the percentage of loss would be very heavy if you are delivering only a very small amount of water, and it would be comparatively light if the ditches were running pretty full. I am asking this question because in examining some other records that have come before me I have been at a loss to determine just what the real percentage should be, because I haven't been advised as to the condition of the canals, whether they were running full or empty.

A. Number 6 shows the condition of the canal at the time the measurement was made.

Q. You mean whether it was running capacity or fifty per cent of capacity?

A. Yes, each canal is shown up in there, as to what it was carrying and what it would carry.

Q. Well, if that is the case, perhaps you shouldn't be asked to do the work of making the computation.

MR. BISSELL: May I call the witness' atten-

tion to this Table "B" here, and I think that contains what the Court desires.

MR. BISSELL: Q. Calling your attention to Table "B" here, for instance, on the Dietrich tract, if you will explain that—for instance, Dietrich main.

A. At station 600 the canal was metered. The length from station 0 to 600 in miles is 11.36. At that point the canal was metered, and was carrying 220 second feet. There was delivered in that length 213.9 second feet, showing a loss of 6.1, or a per centage loss of 2.77, and in this total length a per cent loss per mile of .024.

THE COURT: Q. Do you mean to say that 220 second feet of water were carried eleven miles and lost only 6.1 second feet?

A. Yes. That is all in that canal. It may have been due to the fact that that was an exceptionally good, well-built canal, and in good condition at the time.

Q. Do you think it is possible in eleven miles to lose only one-fourth of one per cent?

A. I do.

#### RE-DIRECT EXAMINATION.

By MR. BISSELL:

Referring to the Dietrich canal between Sections 600 and 982, page 31 of the report, that shows a percentage loss of .43 of a per cent per mile. The length that that occurred in was a little over seven and one-quarter miles. On the other hand, lateral

614-a showed a percentage loss of 11.75 per mile. Of course that was only measured in the length of 4,650 feet. Lateral 1096-a on page 31 shows a loss of 23.40 per mile. In a way, that is misleading, although it is true. That loss was gotten in a distance of only 1800 feet, if you will note, but on the assumption that were that carried out for a mile that would be the percentage loss. If that lateral had been of such length that we could have carried it out for a mile in length, I would probably be safe in saying that that loss would have been probably smaller. The Court will find what the canals were carrying at the time of the examination in Table "A" of the hydrographic report, which shows each canal, and at various stations, the quantity actually measured, the area of the water at the time of the measurement, the hydraulic radius, and the free-board at the time of the measurement. Compared against that is the quantity that the canal would carry with an estimated free-board, which we estimated is sufficient for a factor of safety. In some instances the canal would require a free-board of a foot and a half to two feet, whereas in a smaller canal probably nine inches would be sufficient, where only a small quantity of water is being carried or is to be carried. Take, for instance, Lateral 916-A, on page 23. It shows, at station 16, the quantity actually diverted at the time of our measurement was 5.3 second feet, with a free-board at that time of 1.9 feet, or practically two

feet. We assume that the .9 would be sufficient free-board for that canal, and on that basis the canal would carry sixteen second feet were it forced to. At the time we measured that canal we estimated that it would carry, as a theoretical capacity, sixteen second feet.

The losses which I have testified to are losses in the canals and laterals and sublaterals as maintained and operated by the Idaho Irrigation company. There is a certain distance that the water goes down the channel of Big Wood River after the water leaves the Magic reservoir. I did not compute the losses that occur in the river channel, but that has been the figure that has been accepted by the settlers and the Idaho Irrigation Company—when I say settlers I refer to other decreed rights, and not the settlers under the project,—that has been accepted and used, as I understand, by Water Masters in the past. It is an arbitrary figure that has been set at fifty second feet daily or one hundred acre feet. There is a loss of one hundred acre feet daily in addition to this canal loss of thirty per cent. I do not know of any other loss in the transmission of the water and delivery of water from the Magic reservoir to the farmers' headgates.

#### RE-CROSS EXAMINATION.

By MR. WALTERS:

The river losses, estimated at a hundred acre feet daily, were deducted by me when I gave the figures on the stand or in my report, of the total



amount of water available to the Idaho Irrigation Company. The thirty per cent transmission loss in the canals that I used in my figures is from the figure arrived at after I had taken out the river losses and the reservoir losses.

#### RE-DIRECT EXAMINATION.

By MR. BISSELL:

The reservoir, after the spillway was raised five feet, has a capacity of 195,600 acre feet. In delivering that water to the farmers' headgates there would be a loss of one hundred acre feet per day in going down the Big Wood River, and the thirty per cent loss starts at the head of the distribution system, not at the point of diversion from the river. All of this loss has been charged to the Company and not to prior rights or other decreed rights. Assuming that there was 195,600 acre feet in the reservoir at the time the Idaho Irrigation Company begins to draw on its storage water for the purpose of irrigating the land, and that they draw it out in sixty days, and assuming the reservoir loss to be 12,800 acre feet, the amount of water that would reach the farmers' headgates after deducting all losses, would be 123,760 acre feet. To obtain that figure I first deduct the reservoir loss, then 6,000 acre feet for river loss and then I deduct the canal loss.

Upon inquiry of counsel for defendants as to whether the Court had any rule limiting the number of expert witnesses on the duty of water, in the

event that subject should become material in the case, some discussion followed, and counsel for plaintiffs stated that on account of the diversity in the soil and depth of soil and other conditions on different parts of the project, plaintiffs expected to call a large number of farmer witnesses in addition to the technical experts, and after considering the matter, the Court said:

"I think I will say this: I will limit you to twelve, in view of your statement. That is rather an extraordinary number of witnesses for that sort of testimony."

S. T. BAER, being recalled by plaintiffs, upon further direct examination testified:

Document marked Plaintiffs' Exhibit No. 7 is a copy of the 1918 report of Sewell H. Chapman. The same was admitted in evidence and contains testimony gathered by Mr. Chapman while acting as Special Deputy on Districts 7-a, 7-b, 11-a, 11-b, Big and Little Wood rivers, under supervision of Fred A. Wilkie, State Engineer of Idaho. (Said report need not be incorporated in the record on appeal, but shall be sent to the Clerk of the Circuit Court of Appeals for the use of the members of that Court, and need not be printed unless so directed by that Court.)

It appears from Mr. Chapman's 1917 record that stored water was first released from the reservoir on June 7th, and continued for each and every day until October 1st, on which date Mr. Chapman

ceased his duties as water master, and we have no further record. From the 1918 report I find that water was first released, known as storage water, from the reservoir on May 5th, which water continued in varying amounts until June 10th and then it ran intermittently until September 11th, that is to say, it probably started again on June 16th and ran until June 29th, and then there was a four or five day interval during which no stored water was released, due to conditions probably of moss in canals, or due to the fact that the heaviest irrigation season was over, or the heaviest time in which the irrigation was going on was completed, and the Company then would be permitted to close their ditch and hold that amount in storage until called upon again. The intermittent delivery of water in 1918 was not due to the fact that the water was not in storage.

WHEREUPON plaintiffs offer in evidence for the purpose of illustration and explanation a blue print map of the Idaho Irrigation Company's project. The same was marked Plaintiffs' Exhibit No. 8. (Said map need not be incorporated in the record on appeal but shall be sent to the Clerk of the Circuit Court of Appeals for the use of the members of that Court.)

WALTER R. BURKHART, a witness on behalf of the plaintiffs, testified as follows:

**DIRECT EXAMINATION.**

By MR. BISSELL:

My residence is in Bliss, Idaho; occupation, farming. I am by profession a civil engineer, duly licensed as such in the State of Idaho. I never graduated from any institution. I have been a licensed Civil Engineer in Idaho for possibly twenty years. My home has been at Bliss, Gooding County, Idaho. I was at one time in the employ of the Idaho Irrigation Company as an engineer.

I commenced work with them before the segregation and my employment ended at the opening at Gooding, from about 1906 to the time of the opening at Gooding in the fall of 1908. When I was first employed upon the project no work had been done. I was with the first party that ever came to the Magic reservoir. I helped to do all the preliminary engineering work for this project. In so doing I became familiar with the territory now covered by the project of the Idaho Irrigation Company, except the Dietrich tract. I helped to run the preliminary surveys for the various main laterals of the Idaho Irrigation Company. I set the section corners and the quarter stakes on the project on the North Gooding tract and the South Gooding tract, embracing about 110,000 acres. This land had been originally surveyed and I simply put stakes and marked the corners so that the prospective settler would be able to tell where he was at. I also cruised the project under the direction of the Idaho Irrigation Company for the purpose of classifying the land, and in doing so, I became familiar

with the various farm units and examined each of them, with the exception of the Dietrich tract. Prior to the commencement of the work on the Magic reservoir I became familiar with the reservoir site and with the river leading from the reservoir to the point of diversion. The first point of diversion is the Lava canyon and between that and the second point of diversion is a broad, flat of gravel, locally called the Cottonwood Sink.

WHEREUPON, it is stipulated and agreed between the parties that 100-acre feet per day is lost in the Big Wood River channel between the dam of the Magic reservoir and the point where the water is diverted into the main canal of the Idaho Irrigation Company, and that such loss is in addition to the canal loss as reported by the State Engineer.

The tract is generally rolling—a rolling lava bed with a thin layer of soil underlaid by lava bed. Evidently originally the lava was very rolling, and very rough, and of course, the surface soil is a little more level on top. That makes outcroppings of rock and in the lower places of course the soil will be deeper and the action of the elements has smoothed it off on top to a certain extent. The lava subsoil is just like as found everywhere, full of contractions, cracks in every direction. The tract is crossed by the Oregon Short Line and lies on the north side of Snake River towards the lower end of the bend in Snake River adjacent to the North Gooding tract, probably six or eight miles from Snake River.

I am familiar with the canyon of Snake River at a point opposite and west of the Twin Falls North Side segregation. I have known it since 1892. I was engaged in mining in that vicinity along in 1892-3-4. I had occasion to use the water from springs along the rimrock of the Snake River canyon. About a dozen springs tributary to what was known as the Montana Mining Company's ditch, including nearly all the springs between Bliss and Malad. There are thousands of them. That section is locally known as the Thousand Springs country. That condition as to springs does not exist at any other point along the Snake River except at this point opposite the segregation of the Idaho Irrigation Company and the North Side Twin Falls Company. I had occasion to handle the water in the Montana Mining ditch before the construction of the Idaho Irrigation Company's project and the Twin Falls North Side project. The North Side supplies the Thousand Springs. The measuring devices, if any, were crude, but I handled so much that I have a very good idea at the present time as to what there was. We had a mining machine designed on purpose for the volume of water then available, which was about 600 inches from these twelve springs on the North Side of Malad canyon. After the construction of the Idaho Irrigation Company's project I had occasion to investigate the amount of water in this same ditch and from the same springs, and there was at least twice as much water there after the construction of the Idaho Irri-

gation Company's project as there was prior to that. The flow of the springs had been doubled. I have noticed no fluctuation in the ditch, simply an increase in volume in the discharge of the springs.

I have a farm about six miles from the segregation of the Idaho Irrigation Company. The soil there is generally the same as on the Company's project. There is some variation all over the country. I have investigated the condition of the subsoil or lava flow which underlies the project. Evidently that lava came there in a molten state, and, due to the falling temperature, as a matter of course, contraction cracks would come in it in every direction. The best description I could give of it would be to speak of it as like when mud dries up in the road it produces a crack in every direction. Whenever the weight of the portion is so great that the strength of the material won't move it back and forth as it expands and contracts, then it will break in two. The underlying subsil of this project is shattered lava. I had occasion to observe it along the laterals and ditches and various places on the project while employed there. The water applied by irrigation escapes through these lavas and into the Snake River. On the North Gooding tract there is a closer soil. I would suppose what would be called a lava ash with probably a little sand and a little clay. I would say the depth of the soil would vary from nothing to two or three feet and maybe in some spots even more. The Richfield tract is different. I would say that it was better soil,

if anything, more loose. I should think it was more loose and deeper and more uniform in depth. On the South Gooding tract some of the soil is blow sand, all of it is more sandy than the other tracts, but the topography is generally better. The depth of the soil is variable, but more uniform and the surface is not so rough.

#### CROSS-EXAMINATION.

By MR. WALTERS.

The springs I have referred to are located between the mouth of the Malad River and Bliss and locally called the Thousand Springs. It is a series of springs extending for about thirty miles along the river. My notion is that the water in those springs that came directly under my observation, has about doubled in volume since they began to irrigate on the Idaho Irrigation Company tract. That would indicate, to my mind, that those irrigating on the Idaho Irrigation Company tract and the tract of the Twin Falls North Side Land and Water Company were using water that was not consumed in feeding or watering the plants, but was escaping by deep percolation to the river. Those who are irrigating upon those tracts are letting water get away. That is the only conclusion to be drawn from that part of my testimony.

The soils are of an indefinite depth. I do not think the soil on the Idaho Irrigation tract would average four feet. We made some tests along the main canal by driving down an iron bar, for the purpose of locat-



ing the canals. I never made any soil borings. My knowledge is of a general nature, such as one may have who lives in that country, yet it was my duty to classify the land and determine as to first, second and third quality, and therefore I went into it a little more than just the casual observer. But in classifying it I did not use a soil augur and make tests. My classification was practically all based upon surface indications. When I said the soil was two feet in depth in places I meant that it would there meet the lava rock or lava subsoil. There might be a little hardpan in places. There are places where the soil is deeper than two feet, but I do not think it would average four feet. The same condition is true on the Twin Falls North Side tract. When water goes down through those cracks in the lava, as often it does, a hole will break out in the field and the water will drop through, maybe a second foot of water will go right down the hole. That water might run there indefinitely without ever filling that hole. Of course, it undoubtedly must come to some impervious stratum. That was my idea for thinking that that water joined those springs. That situation occurs on every farmer's field over there as far as I know, but I do not know about the water breaking through that way on the Richfield tract. If there is a water table under any portion of the tract it must be flowing at the bottom of that lava. There is undoubtedly an impervious stratum there; that water has to stop somewhere. And the more water you put

on the more water will flow away between those cracks I spoke of and go down and augment these springs. One could not put sufficient water on this land to create a pond. I have never seen in all that country a single pothole that would hold water for any length of time, maybe go down from six inches to a foot a day. By pothole I mean a low place in the lava from which there is no drainage, and under these potholes there would be no water table. I do not know what the gross acreage of these potholes would be. I could not say whether it would be one-tenth of one per cent of the entire area. I do not know of any of these potholes on the Richfield tract.

#### RE-DIRECT EXAMINATION.

By MR. BISSELL.

When I said there was no water table under these potholes I did not mean to leave the impression that there was a water table under the other parts of the land. The water from the surrounding land drains into these potholes and then disappears down through the ground. Each of these potholes is really a drainage sink for some portion of the surrounding land.

#### RE-CROSS-EXAMINATION.

By MR. WALTERS:

There are places on the South Gooding and North Gooding tracts where, because of the natural depression in the soil the surface drainage or run-off will gather and congregate temporarily and I would expect a lake of that kind to go down at least a foot a

day. These potholes are formed in places, but they are simply lava formations, lava underneath, although the soil in the potholes is apt to be deeper than anywhere else. I think it is impossible to create a swampy condition on any part of this tract.

John E. Badley, witness on behalf of plaintiffs, testified as follows: Direct examination by Mr. Bissell:

I reside at Boise, and I am Carey Act Engineer in the Department of Reclamation. In 1914 I was employed by the Chinese government to go to China to make investigations on the Hwai and Yellow Rivers. In 1915 I was employed by the State Engineer to distribute the waters on Big and Little Wood rivers for that season. In October of that year I was employed by the Farmers Protective League as Engineer on the Idaho Irrigation tract, for the farmers. In 1916, 1917 and 1918, and until April 6, 1919, I was in the same capacity. I am now Carey Act Engineer in the Reclamation Department of the Commissioner of Reclamation of the State of Idaho.

In the course of my employment as watermaster on the Big and Little Wood rivers, and my employment as Engineer for the Farmers Protective League, which is a water users association of the Idaho Irrigation Company tract, I became familiar with the project of the Idaho Irrigation Company.

The Richfield tract, under the Magic reservoir, and the main canal down along the Little Wood River, lays between the Little Wood River and the Big

Wood River, and comes down here, and is a large body of soil, and in between here is broken lava and sand, and also in here; and the same condition prevails along here, Big lava flows. There is a lava dyke or flow of broken lava separating the Richfield tract from the North Gooding tract, and that the same flow of lava separates in most part the North Gooding tract from the South Gooding tract, and the Dietrich tract from the North Gooding, and also from the Richfield tract.

In the course of my investigation or employment I have been all over the Richfield tract in every way. Take it as a whole the soil is more of a lava ash formation. In depth it runs from nothing down to about ten feet. It is really the best laying of the whole tract, and the soil is more uniform, but in most cases there are lava outcroppings on the ranches at places. I am referring to the Richfield tract. Being at the ranches when they were drilling wells, digging to put in cisterns and cellars and postholes, I have observed pretty thoroughly the texture of the subsoil or stratum underlying the soil. There is no subsoil at all. It runs from nothing down to about 10 or 12 feet, is the deepest I have noticed the soil in anyone particular place; from that it is lava rock down to a depth of about 300 feet, where they dig the wells, but perhaps a little strata of gravel or some other soil. I have seen them dig postholes with powder, and in other places I have seen cisterns perhaps at a depth of about 6 or 8 feet in soil. These cisterns are arti-

ficial storage reservoirs for domestic use.

The North Gooding Tract, the soil is somewhat like the Richfield tract, but it is broken more. The lava flow down in here was a distinct lava flow, and on the north of it was a distinct lava flow, solid lava, with caves all between, and the soil in between here is more broken than it is there. By broken lava I mean lava rock coming to the surface and outcroppings of lava, and fissures in the lava. Take perhaps a 40 or an 80 acres, there would be perhaps a little spot here, two or three acres that could be cultivated or irrigated, and it would necessitate perhaps getting the water around some other way to irrigate another eight or ten acres.

The South Gooding tract is broken up and lava, but not as much as on the others; there is a good deal of sand, more blow sand, rough. The depth of the soil in the South Gooding tract is from nothing down to, I should say, 10 or 12 feet, possibly in some places 20 feet, some places where the sand and the soil has drifted in. The wells are uniformly about 200 feet to get to any water at all.

The Dietrich tract is broken with lava, but it is more like the South Gooding tract, sandy, and parts of it is so very sandy that it is almost impossible to get a stand of crop on it, blow sand in the spring—it depends on the moisture. The depth of the soil is about the same as the South Gooding, and the wells go anywhere from 150 to 300 feet deep.

The method of irrigation necessary on these 40 or

80-acre farm units that are split up and divided by these outcroppings of lava, is as follows: Where the main lateral would lead down to a 40, the lateral from the main lateral, the farmer's lateral, and if possible they will put it all through one canal and make short canals out to these places. Quite frequently there is a place of three or four or five acres that they can irrigate, and then they will have to extend the canal on down, on around, to get to the others. It is more or less like the corrugation method, on account of the steepness of the soil.

The surface topography of the Richfield tract south and west is quite steep, a good deal of fall in the country, rolling. The Richfield, Dietrich, North Gooding and South Gooding tracts slope quiet rapidly. The full slope of the two rivers, Big and Little Wood River, as the soil lays along those rivers, the fall is considerable. The country is naturally steep, with a steep pitch parallelling Little Wood River and Snake River. The surface topography is from rough to rolling, with very little flat land in it.

As engineer for the Farmers' Protective League I kept the dates of the filling and emptying of the Magic reservoir. The reservoir was not filled in 1915. I was watermaster on the river for the state that year. The highest mark reached by the water in the reservoir that year was on the 4th of May, and it then had approximately 83,000-acre feet, between 83 and 84,000-acre feet. The reservoir was filled for the irrigation season of 1916. I have not the ex-

act date when the water started to run over the spillway in 1916, but it ceased going over the spillway on July 18. It began the forepart of April, about the 15th of April. The water ran over the spillway from about the 15th of April to the 18th of July in 1916. I ascertained the number of acres in cultivation on this project in 1916. I got my information from the Idaho Irrigation Company. The report I got was 36,621 acres in 1916.

There was water retained in the reservoir in 1916 after the close of the irrigation season. On the 1st day of October, according to the gauge reading, and from the tables that I was able to get, there was 49,000-acre feet in the reservoir. They didn't irrigate any after that date. In 1917 the water started to run over the spillway at 6 p. m. on the 6th day of May. It continued to run over the spillway until the 3rd day of July. They stopped delivering water to take the moss out of the canals, and held it about that. From the 6th day of May until the 3rd day of July the flow of Big Wood River escaped over the spillway and was not available for storage. I was present when this map was prepared (Plaintiffs' Exhibit 3) and was consulted during the preparation of this map.

In compiling this chart, however, the Idaho Irrigation Company has been given credit for the normal flow of Big Wood River that escaped over the spillway in 1916. And the same is true in 1917. That water was not impounded and was not held by the

Idaho Irrigation Company, but in the preparation of these charts the Company has been given credit with all that water, the same as though it was all actually available, because they had no way of getting a record of the amount used below and the amount of the run-off. There was water used below by the Idaho Irrigation Company. At the end of the irrigation season in 1917 there was 46,000-acre feet of water left in the reservoir. There was no irrigation done after October 1st. The Company is, by this chart, given credit for the 46,000-acre feet carried over, in compiling the average water in 1918. The water remaining in the reservoir is shown on the chart in the column of water available in 1918. I don't know whether it is made up on a theory that they will give the Company credit twice for the same amount of water.

The reservoir did not fill in 1918. The high point was on May 4th, and it had 145,904-acre feet. The reservoir did not fill in 1919. I don't know how much water was impounded that year. I was in the department and Mr. Chapman was there. In 1917 there were 39,121 acres under cultivation and 46,000 acre feet remained in the reservoir at the close of the irrigation season. In 1915 the water supply was actually exhausted on the 22nd or 23rd of July. I was watermaster on Big Wood River that year. There was a rotation system that they adopted when the water got low in June, running three days on one tract in one ditch three or four days, and three or



four days in the other ditches, to make it last a little longer in order to save the water, and I think the total amount was exhausted on the 23rd of July. Thirty-three thousand four hundred and seventy-seven acres were in cultivation in 1915. In 1916 water was delivered until October 1, and 36,621 acres were in cultivation that year, and there was a surplus of 49,000-acre feet in the reservoir at the close of the season. In 1917, 39,121 acres were in cultivation and in 1918, 35,044 acres were in cultivation. In 1918 the water supply of the Company was exhausted, I believe, on August 2nd. In 1919, 56,000 acres were in cultivation. I think the water supply was exhausted on the 15th of July. The reservoir was dry in 1915 and in 1918 and in 1919. The water was all used up. I have no record showing when they commenced to irrigate in any of these years, but the South Gooding tract and the Dietrich tract start irrigating earlier than either the Richfield or North Gooding tracts on account of the elevation and soil. In 1916 water deliveries were interrupted only once, and that was when they were cleaning out the moss in the canals. It was from three to eight days. The same is true for 1917. In 1918 the service was interrupted while cleaning out the moss, and then there was some rotation system, that is, turning part to one and part to the other, and sugar beets were given the preference when the water got short down at the lower end. I don't know the exact number of interruptions, but it was three or four. I understand the

same is true in 1919, but I have no personal knowledge of that.

In the course of my employment as engineer for the settlers I had occasion to measure farm laterals for the purpose of ascertaining the amount of waste in the farm laterals between the farmer's headgate and the farm. In 1917—I can't give the exact date—Mr. Sinn complained about not getting his amount of water measured through the submerged orifice of his place on the Dietrich tract. I went out with him to measure the water, and we measured it through his submerged orifice, and he was supposed to draw 40 inches, and a quarter of a mile, just running through 40 acres—I put in a weir and levelled it up right, with a half foot velocity, and found out that he was getting 30 inches there, a loss of ten inches, there. Mr. Antone Johns, the same year, the water was turned to him—it runs down a short ways through a gulley, and then through his farm lateral. His loss was about 30 per cent. In 1917, on the Richfield tract, for Mr. Parkhurst, as his request, I went and measured the water, and the loss was something like 27 per cent from his headgate to his land. There have been numerous ones. Those are the only ones I remember. I cannot recall distinctly measuring any other laterals. I know I have measured a great many more, more for the purpose of satisfying the farmers that they were getting their amount at the headgate, rather than to make any investigation as to the loss in their laterals.

As to whether the conditions surrounding these three experiments were typical or exceptional, I will say that one of them, in Mr. Sinn's case, was typical of the Dietrich tract. And Mr. Johns' place on the Dietrich tract would be typical of the soil generally on the Richfield or other tract. And Mr. Parkhurst's on the upper end of the Richfield tract, would be typical, conditions rather favorable to the tract.

#### CROSS-EXAMINATION.

By MR. WALTERS.

There is approximately three miles from the Magic reservoir to the first diversion point, called the Richfield diversion dam, and the water from that point irrigates the Richfield tract and the Dietrich tract. The Dietrich tract is also supplemented by Little Wood River water. The Magic reservoir is also diverted for the irrigation of this tract at a point called Cottonwood. That goes along the South and West ends of the Richfield tract and empties into Little Wood River at Marley. That point of diversion from Big Wood River is between eight and ten miles from the Magic dam. There is a third point of diversion from Big Wood River for water from the Magic reservoir. That is about 15 or 20 miles. That is known as the North Gooding diversion point. The canal runs from that point south and west and carries water to the land in the North Gooding tract. The foregoing are the three main diversions from Big Wood river. The Company diverts the natural flow of Little Wood River. That

is not impounded in the Magic reservoir. That is usually diverted for the South Gooding tract, although they get it on the Dietrich tract also. It may be diverted at two different points, from Little Wood River for use either on the Dietrich tract or the South Gooding tract.

The Magic reservoir is made by a dam across the channel of Big Wood River. On direct examination I said that the water that went over the spillway could not be impounded by the Company and was lost for that purpose. Some of this water, however, was diverted at the three different channels that I have mentioned and used upon the tract. As much of it was used as the requirements at that time demanded. Because of the volume much of the water was lost to the water users. In 1916 the water ceased going over the spillway on July 18, and the water that was distributed to the irrigators prior to that date came over the spillway. What was used by the irrigators was not lost. What I mean is, that because of its volume, and partly because of the conditions of the season, the ground not needing water until along late in June, some of it could not be used and would pass on down Big Wood River. This water that went over the spillway was used in supplying the prior decreed rights. The same facts hold true as to 1917. In that year the water ceased running over the spillway on July 3rd.

The duties for the organization for which I was engineer, gave me the same opportunities for observation and experience as though I had been water-master. During the years 1916 and 1917 the irrigators under this tract had water on demand, as much as they wanted, generally speaking, but there was of course lots of complaint that they were not getting a sufficient water even during those years, owing to the lack of capacity, they claimed, of the canals, the main canals, the North Gooding and the Dietrich particularly. They were only given their five-eighths of an inch at their headgate, and they didn't get that, owing to the limited capacity of the canals at the head, owing to moss conditions. Moss conditions obtain in every canal more or less. I don't mean to convey the idea that the settlers were given all the water they wanted. They were only given five-eighths of an inch at any time during those two years. During the season before they began to draw upon the reservoir those who wanted water were given an excessive amount where they could get it out, but I don't think in any case they were given all they wanted to use. Some of them wanted an inch and a half or two inches, unless it was drawing directly out of the river. One reason, I suppose, in telling the farmers about, when I got the complaints, all of them perhaps would want an inch and a half or two inches, in order to get their crops started, and the capacity of the canal would

not give it, and if you would give one farmer all he wanted the others couldn't get it.

They always were limited a good deal, not by crop requirements but by what the canal system would carry. In 1915 the water users were placed under a system of rotation suggested by the Company and concurred in by the State Engineer's office, if I remember correctly. The State Engineer issued an order to the Irrigation Company to distribute water in accordance with a system of rotation. The Irrigation Company assisted the State Engineer's office because of their knowledge of the supply, and they requested it for the benefit of the project, but they couldn't do it without authority, so they asked for authority and got it. The water in 1915 was distributed in accordance with the authority given by the State Engineer's office.

In 1915 the water supply was exhausted on July 22nd or 23rd, near as I can remember. The Company have the oldest rights on Wood River, and in shutting down the gates to hold the water they held the water that was running down, in order to give a domestic head to the different canals, as they could, and there was one or two that could get enough to run down the ditch that would turn it out and they delivered domestic water after July 22nd. I think the same was true in 1918, that deliveries were made of water for some purposes after the time I have stated that they ceased delivering water. I do not remember whether it was reserved

in the reservoir after August 22nd for that purpose, but I think it was for domestic purposes and for sugar beets on the Richfield tract.

#### RE-DIRECT EXAMINATION.

By MR. BISSELL:

There are no living streams carrying water into the Big Wood River between the Magic dam and the Company's points of diversion on the river. The only stream that flows into Little Wood River below Richfield is Cottonwood Slough. It overflows from Big Wood River in high water. The Little Wood River and the Big Wood River and the Malad River above the reservoir constitute the entire water supply of the Idaho Irrigation Company.

I have in my possession as Carey Act Engineer in the office of the Commissioner of Reclamation, official records showing the amount of water that run off through the Big Wood River at the Thorpe ranch in 1917. The Thorpe ranch is below the lowest part of the Idaho Irrigation Company's segregation. The record taken by Mr. Chapman as Deputy Engineer for the month of June, 1917, shows 59,422-acre feet past the Thorpe ranch, and in the month of July, 8,152-acre feet. In the months of June, 59,422-acre feet was waste and in the month of July 8,152-acre feet. That amount of water is represented as available in the column for 1917 (Plaintiffs' Exhibit No. 3), and the Idaho Irrigation Company has been credited with it. Then the amount of water actually available for distri-

bution would be 67,574-acre feet less than is represented on this map. There was also some-run-over in April and May which isn't accounted for. This will be a greater loss on account of not being any irrigation. I have the official records of my office which show the amount of water that was wasted at the Thorpe ranch in 1918. This is also taken from Mr. Chapman's report. In April there was 4,770-acre feet. In May there was 1,140-acre feet. In June, 1,636-acre feet, and in July 84-acre feet. In the preparation of the chart the Company was credited with this amount of water as available. The chart, therefor, shows a greater amount than was actually available for distribution. In a water year in which the flow exceeded the flow of 1916 or 1917, a greater amount would be wasted and proportionately. Water to be used is only regulated by the capacity of the reservoir, when it comes to the high-water stage.

#### RE-CROSS EXAMINATION.

By MR. WALTERS.

The Thorpe ranch is located, I believe, about seven or eight miles below the junction of Big and Little Wood rivers. The water that passes the Thorpe ranch comes from Little Wood River and Big Wood River. I said that in June, 1917, 59,422-acre feet passed the Thorpe ranch. I presume some of that water came from Little Wood River. There is no record to show how much of the water wasted from the Magic reservoir down Big Wood river past



the Thorpe ranch. That is true as to the other measurements at that place. Some of the water came from Big Wood River, and some of it came from Little Wood River. In April, 1918, there was wasted past this ranch 4,770-acre feet. That is taken from the records of Mr. Chapman, the deputy in the office, and I merely read the records as they are here, I don't know that that water wasted away from the Magic reservoir.

The South Gooding tract, being directly from Little Wood River, takes all the surplus water from April on, outside of the older ones, and there is no waste unless it should come in from the Twin Falls North Side, or a storm season, or something of that kind. Some of the water might waste back into the River from the farmers' ranches, a little, but it is picked up again and used right to the mouth of the Little Wood River. In the months mentioned, April, May, June and July, 1918, water wasted from Little Wood River into Big Wood River above the Thorpe ranch, when they let it get away. In reading the record here, it says water from the Big Wood wasted at Thorpe ranch, and I am reading Mr. Chapman's records. I cannot interpret the meaning of Mr. Chapman's work. I know that the Little Wood River comes into the Big Wood River above the Thorpe ranch.

#### RE-DIRECT EXAMINATION.

By MR. BISSELL.

The waste measured at the Thorpe ranch was

water that wasted either from the Big or Little Wood River or both.

#### RE-CROSS EXAMINATION.

By MR. WALTERS.

There are some small canals below the North Gooding diversion that I don't know. That is on Big Wood River about thirty miles above the Thorpe ranch. The North Gooding tract is located from the North Gooding diversion down to within seven or eight miles from the Thorpe ranch. And the waste water from the ranches irrigated there comes back to the Big Wood River. Some of this water that I have mentioned in the months of 1918 could have been waste water that came from the ranches.

#### RE-DIRECT EXAMINATION.

By MR. BISSELL:

Blow sand is sand of such pure quality that the wind in picking it up will blow it. It isn't held by any soil.

A. V. Tallman, recalled by plaintiffs, testified as follows:

#### DIRECT EXAMINATION.

By MR. BISSELL.

I have made a computation of the run-off of Big and Little Wood River during the years 1909, 1910 and 1911. The computation also includes the years represented on the map. Paper marked Plaintiffs' Exhibit No. 9 contains the computation I made.

Said exhibit is submitted in evidence and is as follows:

### PLAINTIFF'S EXHIBIT NUMBER "9."

Table in Acre Feet Showing Quantities of Water Available for Water Users of Big and Little Wood River.

| Irrig. Year | Total Flow Available. | Old Rights. | L. I. Co. Rights. | 4.5 Ac. Ft. Per Acre 6.43. | Possible Acreage in Project 40 Ac. Ft. Per Acre 5.71. | 33.5 Ac. Ft. Per Acre 5.0. |
|-------------|-----------------------|-------------|-------------------|----------------------------|-------------------------------------------------------|----------------------------|
| 1908-09     | 571,253               | 96,110      | 475,143           | 73,894                     | 83,213                                                | 95,028                     |
| 1909-10     | 603,778               | 106,522     | 497,256           | 77,334                     | 87,085                                                | 99,451                     |
| 1910-11     | 799,465               | 123,756     | 675,709           | 105,087                    | 118,337                                               | 135,709                    |
| 1911-12     | 366,798               | 109,820     | 256,978           | 39,965                     | 45,000                                                | 51,396                     |
| 1912-13     | 413,736               | 118,260     | 295,476           | 45,953                     | 51,747                                                | 59,095                     |
| 1913-14     | 548,090               | 117,460     | 430,630           | 66,972                     | 75,417                                                | 86,126                     |
| 1914-15     | 243,473               | 99,544      | 143,929           | 22,384                     | 25,206                                                | 28,786                     |
| 1915-16     | 602,414               | 125,552     | 476,862           | 74,162                     | 83,513                                                | 95,372                     |
| 1916-17     | 648,464               | 123,678     | 524,786           | 81,615                     | 91,906                                                | 104,957                    |
| 1917-18     | 317,826               | 101,704     | 216,122           | 33,611                     | 37,850                                                | 43,224                     |
| 1918-19     | 260,851               | 83,472      | 177,379           | 27,586                     | 31,064                                                | 35,476                     |
| Total       | 5,376,148             | 1,205,878   | 4,170,270         | 647,663                    | 730,338                                               | 834,620                    |
| Average     | 488,740               | 109,625     | 379,115           | 58,878                     | 66,394                                                | 75,874                     |

265,381 Ac. Ft. Avg. Available at Farmers' Headgate for 11 Years Above Indictaed.

### CROSS EXAMINATION.

By MR. WALTERS.

I have computed the same thing that I did in the

eight years, shown on Plaintiffs' Exhibit No. 3, and added the other three years on. This total that I have at the bottom of the column here, which is headed "Idaho Irrigation Company Rights"—the average of eleven years, 379,115 would have to be deducted by thirty per cent to represent the same figure that I gave yesterday. I have not made the deductions but can do so very shortly. I will write the figure at the bottom of this exhibit. It is 265,381-acre feet average available at Farmers' headgates. By adding the three previous years that I had not included yesterday it increases the total amount available at the farmers' headgates from 220,000, in round numbers, to 265,000 as an average.

#### RE-DIRECT EXAMINATION.

By MR. BISSELL.

In years of plenty or excess water, all the water after the reservoir was full, except that which could be used by the farmers, would waste down Big Wood River.

It is stipulated between counsel that the dates given by Mr. Badley in his testimony as to when the water in the reservoir was exhausted during certain years are substantially correct.

N. W. Sine, a witness on behalf of plaintiffs, testified as follows:

#### DIRECT EXAMINATION.

By MR. BISSELL.

I am a farmer and live on the Dietrich tract.

Have lived there a little over six years. I have eighty acres of land in the Northwest Quarter (NW $\frac{1}{4}$ ) of section 21, 6-9. About thirty or thirty-five acres of my land is in hay. I have had part of the eighty acres in grain and potatoes. The soil on my place and the immediate vicinity is sandy. There are three different kinds of subsoil. Some of my ground is very deep soil, and I have one place where the lava rock is right to the top, and I have got another piece that you plow up this rock; a kind of rock; the plow will go through it; the water goes in it. The soil is from ten feet to nothing in depth in my place.

I have cisterns. Where I dug two of my cisterns down about ten feet it is hard in the bottom, but I dug down without striking any rock, and I have two other pieces that the lava rock comes right out on it. The surface topography is rolling.

I have 77 water shares under my contract with the company, of five-eighths of an inch per share. Sixty acres of my land is under cultivation.

When I get the water in the spring I never turn it off. I have to keep it going all the time. That is the way my land is, on the sixty acres, and I have never plowed any more, because I felt I couldn't water any more than sixty acres and do it justice. I used both the corrugation and flooding system. I flood five or six acres and the rest is marked up. The main lateral from which I get water goes right down through the east side of my place. I get water two

ways on my place; perhaps a quarter of a mile from the lateral down to my place. I keep the water continuously on that ground in order to irrigate, both night and day, during April, May, June, July and August, when I have the water. I also require it in September and October. I irrigate my hay crop twice for each crop and grain I irrigate twice, when I have the water.

I cut three crops of alfalfa in 1916 and 1917. I won't say both years, but I am sure I cut three crops in one year. In 1915, 1918, 1919 I cut two crops of hay. I didn't have the water for another crop. In order to get three crops I should have the water up to October first.

There is no place on my farm that will hold water no length of time at all. I have tried to dig out water holes, but I have a hole by the ditch where I take my stock up to water them, but not on my place. When I have attempted to hold water in reservoirs on my place it goes down in the ground. I have got a couple of potholes on my place, but the water won't last only two or three days. The water goes right down.

I require water after October 1st. There has been several seasons that the ground was so dry we can't plow any in the fall without we have water to wet the ground with. For that purpose and also for pasture we require water. The pasture dries up, and we need the water to fetch the pasture on. Since I have been there I think we have had only one April that we didn't need water. I don't remember what year

it was. I think water is necessary after October. I wouldn't exclude any. We need the water.

I have been in the dairy business and have had as high as ten cows. I sold most of my cows about two years ago because the water was very short, and I have only got cisterns, and I had to haul water, and I couldn't keep my stock, and the pasture was very short, and for that reason I thought I would sell most of my cows and I did.

I wouldn't say that I got two full cuttings in 1915, 1918 and 1919. We got light cuttings last year. I don't know of any means or method I could adopt to irrigate and farm my land with a less amount of water than I have had. The crops grown in the good water years of 1916 and 1917 were much better than in the other years. I believe that condition exists all over the Dietrich tract, and that is the only tract I am really acquainted with.

#### CROSS EXAMINATION.

By MR. WALTERS:

I came on the Dietrich tract in the fall 1913. About half of my plowed up land is in alfalfa and the other half in grain, potatoes, etc. The reason I haven't any more alfalfa is that my place is a hard one to seed down. I have been hard up against the water, to get more seeded down and keep the other crops going. I have got a hard place. It is sandy, and it takes lots of water. I have lost two or three seedings in 1915. I seeded ten acres in the spring with alfalfa and I had grain besides, and I got it

started, it all came up, and I lost it all that fall. The water was turned off so early that I lost the whole ten acres, and I had to reseed it again next spring. Some of my difficulties were due to high winds, but the wind didn't blow that out. I have never lost a crop entirely with wind yet. I have lost some, but I have never lost any alfalfa by blowing out, because I didn't put it in so that it could blow out. My place is a sandy place. I don't know that there is any place around there that contains more sand. My ditches come from the same lateral, about a quarter west of my place. I have two headgates. I take from the lateral in two different places. One of the headgates is on my place and the other about a quarter mile away. I sometimes take all of my water from one of the headgates. I do it whenever it is best for myself, so that I can handle it best. I flood some of my alfalfa and corrugate some. I can't flood it all because it isn't level enough. It needs two irrigatings for each cutting. When I get three crops I irrigate it six times during the year. It would take me about three weeks to get over forty acres once with a head of 25 inches. I have never tried to see how many acres I could irrigate in one day with 47 or 48 inches. I said it would take about three weeks to irrigate forty acres with 25 inches. I irrigate my grain twice, and I have even irrigated it three times. Twice will do in some years. When it is very hot weather it needs more water. It depends on the season some.



I don't say that I have always found that two irrigations would be sufficient, because I haven't.

Seven acres of potatoes is the most I have ever had. I keep the water pretty constantly on the potatoes when it is hot weather. That would not be true the entire irrigation season. We don't need to irrigate the potatoes until they are up through the ground.

We harvest the grain in July and August. I don't just know whether we cut any in July or not, but we do in August and September. We may harvest some times in July, some times in August and some times in September; it depends on the time and when it is sown. I would prefer to put mine in earlier so that I don't have to harvest it in September. But you can't always get it in just when you want it. When I harvest my grain in July I have the water for use on the alfalfa later in the season. I way I irrigate the potatoes, I mark out ever other row and I start the water on them when they are up through the ground and ready for water, and when I get through I turn right around and mark out the other part and start over it again. I have water on half of them during the entire season when they are ready to irrigate. I irrigate them two and three times, maybe four.

I just wish to say, if I may, that during the irrigation seasons every year we have had a shut-off of the water about the last of June or the first of July at

my place at least a week, from five to ten days, and during that time everything gets dry. When it gets dry once it is hard to get it caught up, that has been my experience on my place, so you will see where the water goes.

The interval between the irrigations of the grain depends largely on the weather. It might be two weeks from one watering to another.

In October I want the water to wet the ground for plowing, if we haven't had rain, can't plow sandy ground without wetting it up. It gets hard and dries out hard. I don't use water in October for irrigating crops. We irrigate our hay in April, that is the only crop we would irrigate in April, and that would depend upon the season. My corrugations are from 18 inches to 2 feet apart and 25 inches of water might make from 10 to 15 or 20 rows, and it can run in corrugations that average from 3 to 400 feet for a couple of days before it gets through to do any damage at all. My land is in fair shape, about as good as I could get it. There could be a lot of work done on it and make it better, but when I take and fresno off the knolls I don't get any crop. Before I came to Idaho I lived on an irrigated farm in Washington for twelve years, so I have been used to irrigating. I am 62 years old.

If I put more water in one of these furrows on corrugations so as to get through from one side of the tract to the other more quickly it washes the ground, if you put in a stream large enough to go down

through quickly it washes it all out; that is the way my land is exactly. I have experimented to see if I couldn't get it through more quickly. I have tried every way. On the hill slopes, that is where the trouble is; but where it is level or about level there is no trouble. I can't do it differently.

C. H. FREES, called as a witness on behalf of plaintiffs, testified as follows:

DIRECT EXAMINATION.

By MR. BISSELL:

I live at Dietrich, Idaho, on Section 28, 6-19; have lived there for ten years. I have 160 acres. It is all under cultivation except the ditch, about two acres. About 135 acres is in crop.

THE COURT: Gentlemen, I don't think you are going to help me a great deal by going too much into detail with these farmers as to their crops. Ultimately the question of the duty of water will turn very largely upon the conditions which you show to exist there, rather than the experience of the farmers. I doubt not that they have had a great variety of experiences. Some of them may be skillful and some of them may be unskilled in applying the water, but I am more interested in knowing what the conditions are there that bear upon the question of the duty of water, the weather conditions, the contour of the land, the soil conditions, the underlying strata, etc., all of those conditions that an expert or scientist would take into consideration in determining the duty of water; but as to their detailed experi-

ences from year to year, I don't think that would be very much help to me. It is necessarily fragmentary.

About 110 acres of my land is in hay and 10 or 15 in pasture. I had the balance of the land in crop, but didn't raise anything on it the last two years,—seeded it down, but didn't get water enough to bring it up. Some of my soil is very sandy and some of it is mixed sand and clay. There is some clay in the subsoil and then lava rock. The soil is from nothing to four and a half feet in depth. The lava rock in places sticks up through the soil. The surface topography is not very spotted, it's rolling. The conditions as to the depth of the soil are variable all over the tract. I find a spot that is shallow and a spot that is deep. Probably about 80 acres runs about four feet in depth on an average. The other eighty is more or less spotted. On one eighty there is a few spots of lava and the other is more. I don't mean to convey the impression that I have eighty acres that has a uniform depth of soil. On each eighty there are places where the soil is from nothing to four or five feet deep. About sixty acres of my land has clay and sand soil. The depth of that is from nothing to two and four feet. The water goes through the clay. On the balance of my land the soil is on top of the lava rock. The lava is shattered and broken.

I have got a cistern on the place. For about three feet in the ground and three feet on top. I had it cemented. Before cementing it it did not hold water.

I have never tried to make any ponds on the surface. There are several potholes on my place that the water runs into, but it doesn't stay over 24 to 48 hours. Twenty-four inches of water in them would disappear in about 48 hours. Two of them are about 75 to 100 feet. The cistern is twelve by twenty-six feet.

I have 160 shares, or little better than 99 inches. The canal goes through my place. I have four farm ditches from that lateral. One of them is about 160 or 170 rods, one about 80, one about 20, and the other about 20.

As a rule I have to start irrigating about the first of May, sometimes a little later. It takes me about three weeks to irrigate once the 135 acres, using 99 inches. My alfalfa should be irrigated five to six times and each irrigation takes about three weeks. I have tried to water the whole 160 acres in one year. That was in 1916 and 1917. I think I have 159 water shares, 99 inches of water and 159 shares. Using my entire head of 99 inches it takes about three weeks to go over the ten acres of alfalfa and I irrigate that about six times a year if I have the water. A little of my land is corrugated and the rest flooded. My land slopes pretty well to the southwest. It is rolling. It slopes quite steeply to the southwest. During October I have used irrigation water for plowing and pasturing. If it don't receive water in October the results in the spring is quite

poor sometimes, on account you don't get the land plowed in the fall.

#### CROSS EXAMINATION.

By MR. WALTERS:

I generally water alfalfa ground and ground for plowing in October if I can get the water, I pasture the alfalfa. I irrigate the alfalfa for pasture in October. If it is dry I would irrigate it the first part of October up to the middle of October, if the weather is open. If it is warm I water the ground in October and if it is cold I don't, but for plowing I water it whenever I can get the water in October. Sometimes I plow 10 or 15 or 20 acres in October. Practically all the ranches on Dietrich tract have similar lava outcroppings. I farm right up to the edge of the outcropping, but it is quite thin soil in places around those outcroppings, but I farm right up to the edge of the outcropping. Some times the soil is very deep close to the rock and some times it is very shallow. After you get away from the edge of the rock where it outcrops two or three rods the soil does not always go down to the usual depth of four or five feet. That is not the case in most of the instances that I have examined. Sometimes for six or seven rods very shallow from the outcrop until the soil gets deeper, but as one gets away from the outcroppings some short distance, within eight or ten rods, the soil returns to its average depth. I have quite a few outcroppings of lava on my 160 acres.

Some of my land is very sandy and some of it is mixed clay and soil. I think 100 acres of it is very sandy. All the sandy soil is not cropped. I have four or five of those potholes on my place. I have crops planted in the bottom of those potholes. They are four or five feet deep. It slopes down gradually to the center.

I dug the cistern down three feet to bedrock and there was big cracks right in the rock, and I cemented it to hold the water for stock.

Last year I cut the last crop of alfalfa the latter part of August or the first of September. That was the second crop. I just got two crops. In 1916 I think I cut the last crop the last part of September. On the alfalfa I used the flooding method of irrigation. I just spread it over the land. I go home and let it run all night. I want 99 inches flowing on some portion of the 135 acres that I have in crop from the first of May until some time in October. Very little of my water escapes from my land by waste. Sometimes not any, except on the outer edge, that I cannot hold.

HENRY FULBRIGHT, called as a witness on behalf of plaintiffs, testified as follows:

**DIRECT EXAMINATION.**

By MR. BISSELL:

I live five miles north and three-quarters miles east of Richfield, Idaho. I am a farmer. I came there in August, 1910. I have been farming since. I have a surface soil probably of six inches to a foot deep,

and then I have a subsoil and that has a depth of from nothing to four feet. The subsoil is very porous and quite a water drainage. Beneath the subsoil I have lava rock. It is very porous. I dug a cistern, also a cellar, dug the cellar to a depth of four feet and quit. In the cistern I found rock at practically the same depth. In making excavations on the farm I have found cracks and crevices in the lava. In putting down my cistern I struck lava rock at four feet depth, and I blasted it out and practically until I went down fourteen feet it was more or less porous and in the bottom of the cistern there is an inch and a half more, I think two inches of pipe with a drain in the bottom of it, and the wind comes up through it. And I know of three or four other cisterns in the vicinity of four to six miles the same as mine. The minute you dig down and start to blasting it is very porous. There is a crack in the bottom of the cistern. I put in an inch and a half of two-inch pipe to drain the cistern through the bottom. There were several cases there in our neighborhood the same.

I think that is fairly typical of the subsoil in that vicinity on the Richfield tract. I know of a place four or five miles from there that is the same, and I know of two others within two or three miles that are the same, and I would judge it is practically the same all over. After the water gets down in those cracks it disappears entirely.



The surface topography of my land is rolling, and some of it is quite steep. It slopes practically to the east and south. I have 45 and one-half acres and it is all in cultivation except the house yard and barn yard, which would not exceed over an acre. I have 28 and one-half inches of water for my 45 acres. We have a good deal of wind on that tract. It dries the ground.

I think it is necessary to have water in October. It is necessary for plowing purposes, and if you have hay I have found it in my experience, if you have a dry fall, I think the hay is benefited by watering in October; also for pasture, and if you have stock to utilize your pasture in order to market your pasture—is three reasons I think water is necessary in October. If we had rain enough we might have pasture without water in October, but it isn't often since I have been in Idaho that we have had rain enough for pasture. I think I have known of them paying as high as three and four dollars an acre for pasture. Of course it depends on what is on it, but I think I have known of sheep men buying it as high as three and four dollars an acre; and that can only be sold in that way when the alfalfa has been irrigated, after the last cutting and has grown up. At present I have six acres in alfalfa, but it has all been in alfalfa.

I have been all over the tract several different times, and of course I might be exaggerating or I might be low, but I would judge it was around about 70 per cent of the land on the tract in alfalfa, or has

been in; of course there has been quite a lot plowed up lately on account of high-priced grain. I am speaking of the Richfield tract. I am not acquainted with Gooding or Dietrich or Shoshone. The principle crop on the Richfield tract has been hay and pasture, mostly hay. That tract is the highest in elevation of any of the tracts under this system. I think it has not been a successful grain country. The length of the season for raising grain varies. We have had one of two good seasons since I have been there in the ten years, and we have had several more seasons for raising grain. I am not familiar with raising fall grain; I could not say whether or not it requires water in the fall.

The corrugation method of irrigating is mostly used all over the Richfield tract, very little flooding that I have seen, you might say wholly the corrugation system. I have irrigated from in April, but as a rule it is generally about the 1st of May when I start to irrigate. And I think it is necessary to water in October, as I stated before. I have tried to water my land by a system of rotation. I believe the system was—you had to order your water off for so many days, and then you got a double head for the number of days that it was ordered off, and I find that I could handle the double amount to better success than I could the single amount, if you understand what I mean by double and single, because I could handle 50 inches, the way I have my ditch, and my system of irrigating, to better success than I

could 25 inches or 28 and one-half, rather—that is what my contract call for. I don't know of any reason why a rotation method isn't practical there.

### CROSS EXAMINATION.

By MR. WALTERS:

The rotation method is not used on the Richfield tract. I did use it one season. I think one season is the only season we rotated water there, the year we had a shortage there. I think the State ordered it handled in that way.

I believe I can say without exaggeration that we have had frost every month in the year at times since I have been there; I think I can; there hasn't been a month in the year when we haven't had frosts at my ranch. I have seen it on the 15th of July when the potatoes were frozen black, I have seen it in August, it froze wheat when it was in the dough,—well, everybody knows that. I don't mean that that happens in every month in every year. On the average we expect frost in September of every year. We have had more years of killing frost in September, to the best of my memory than we have after that time. What I mean, it will bite the alfalfa down, but I have seen alfalfa growing later than that last year and the year before.

I would want my full allotment of water in October for every acre of alfalfa I have, if I thought it needed it.

Last year, I believe the average yield of wheat on the Richfield tract was below twenty bushels to the

acre. I don't believe I am in position to say what it was in previous years. I think there has been considerably more alfalfa plowed up lately. Alfalfa is a crop that the farmers plant pretty early in the production of the farm to get it in proper shape. Sometimes during the first two or three years a good farmer aims to plant his land, at least the raw land, in alfalfa. I really couldn't say whether that accounts for the raw land being 75 per cent in alfalfa at one time. I would judge it was between 60 and 75 per cent in alfalfa at the present time.

#### RE-DIRECT EXAMINATION.

By MR. BISSELL:

The subsoil is a clay formation. It is quite hard when it is dry and of course when it is wet it is not so hard, but it is quite hard when it is dry. I live in the southwest of the southwest of 25, 3-19. When I say the lava rock is porous I mean the water will go through the cracks. There is all kinds of cracks and crevices in the lava. There is no place under the soil that I know of where the water goes. There is no swampy ground on the Richfield tract.

#### RE-CROSS EXAMINATION.

By MR. WALTERS:

I can create ponds on the Richfield tract. I have one of the largest ones on the tract. My pond lies right in the coulee and I have a dam across the coulee and the area of that pond I couldn't say, but as to catching water there, it gets away pretty fast, I know that. Of course, how fast I can't tell, but I know it

holds water very poorly. It is used for stock purposes and drinking.

OTTO SHIELD, called as witness on behalf of plaintiffs, testified as follows:

DIRECT EXAMINATION.

By MR. BISSELL:

I live in Gooding County on the South Gooding tract of the Idaho Irrigation Company project in Sections 22, 6, 14. I have resided on that piece of land nine years. It is the south half (S $\frac{1}{2}$ ) of the northwest quarter (NW $\frac{1}{4}$ ). I own at present 180 acres. I farmed 140 last year.

I am familiar with the South Gooding tract. As a rule it is sandy. There is some of the soil that is a little heavier, sand and clay, but the biggest part of it is sandy. It varies in depth from a foot to four or five feet, I would say. Then we have a limestone formation on part of the tract, particularly the part that I am on, that varies from six to three feet beneath the surface soil, and this ground requires especially large amounts of water, for the reason that the water will go through this hard pan, as we call it, but the roots of the plants do not penetrate it. Consequently this requires water more frequently than where this formation is not, this hardpan. It is from six inches to three feet to the hardpan. The formation underneath the hardpan varies. Right on my place I drilled a well last winter, and it was twelve feet to solid lava, but the hardpan is about—varies from 14 inches to three feet; and then there

will be a clay formation again. However, that is not typical throughout the tract. In places the hardpan is right next to the lava rock, but on my particular tract that I drilled the well on it was 12 feet to solid rock.

The lava formation is very broken. I know of no swampy places on the South Gooding tract. I wish I did have such on my place. I have tried frequently to make a pond. I never have drilled a well until last winter. I handle considerable stock, and a swampy place or rather a place that would have held water would have been a great advantage to me, and I frequently tried to hold water, but I never succeeded. I have one piece of land that is quite level. In it there is a pothole about—oh, I would say thirty rods from the house. If I fill it the water stands about two and one-half feet deep. At first, when I would know that the water was about to go off, I would fill it, thinking that the water would stay for some length of time. I had no success in that way. And the next time I would run a small stream of water in it for possibly a week or two before the water was going to be turned off, thinking that it would be well filled, that is, the underlying ground would be well soaked up and filled, and it would hold, but I had no more success that way than when I just run it in. It would practically hold about three to four days and be gone.

The condition that obtains on and in the vicinity of my place is typical of the entire South Gooding tract.

I have been on the tract, on that tract, for ten years. I have developed quite a bit of land, not only for myself but for others. I worked for the Idaho Irrigation Company putting in headgates, weirs, and the like, and in this way practically covered the South Gooding tract. I have seen wells dug at different places on the tract, and have seen ponds and cisterns constructed on different parts of the tract, but I have never seen a pond or cistern constructed on that tract that would hold water. I don't think there is any water table beneath that tract; it couldn't exist. From the wells that have been dug, most of the wells have to be cased from almost top to bottom because the rock drops in as they drill and we think that is the general experience with the well drillers, we find that the rock is badly shattered. The usual depth of the wells is from 275 down to 240 feet. My well is 248 feet. My neighbor's on the east is 262 and another is 250, and that is about the way they run. Out of the 140 acres of land that I farmed last year six acres was non-irrigible. It was rocky.

We have a lava rim just below my place. It runs through my place, and that land is fairly flat up above it, and this lava rim makes a drop of about 150 feet to the soil below, and it is mostly that that has been cut out as non-irrigable. I know of a few pieces of forty-acre and eighty-acre tracts on the South Gooding tract that have no lava outcroppings,

but for the most part the forty acre units have lava rock, with outcroppings on them in some place.

The surface topography in that tract is rolling, uneven. The crops grown are principally alfalfa, although the last few years since the high price of grain considerable wheat has been raised. On my own farm I had 100 acres in alfalfa, five acres of orchard, potatoes and a little corn patch. The balance is not developed. The last year the percentage on my farm was 100 acres of alfalfa to about five acres of other crops. I would say that over the tract the land in the last years has been about sixty per cent in alfalfa to forty per cent in grain, of the ground that is farmed. There is considerable undeveloped land yet on the tract.

I used the corrugation system, although some flooding is done. I require water for irrigation about the first week in April, but it varies a little. The South Gooding tract is considerably lower than the Richfield tract, and we require water on the South Gooding tract before it would be required on the Richfield or Dietrich tract. I would like to have water throughout the month of October for pasture and putting the ground in better shape for the following season. The pasture is worth considerable where we want to sell the hay; the hay sells much more readily where we have the pasture, even though we charge for the pasture. The sheep man is willing to pay for the pasture in addition to the price of hay, and if we use it for our own use the



stock goes into the winter in much better condition, if it is pastured as late as possible instead of being started on hay early. I can't see that there is much difference in the amount of water required for alfalfa during the month of October. If I have it I use the full head, although I don't know if we have ever just called for it. If I had one thorough irrigation in October it would be sufficient, that is all I could get. The hay is cut the latter part of September, and it practically takes that time to get over it, so that is all I could water it, would be once.

It is windy on the South Gooding tract, and the winds have a tendency to dry the soil. Evaporation is greater. We have a fairly good rain during the night and a wind the next afternoon, and by evening there is none of the moisture left. If you are irrigating and have a wind the evaporation is greater.

#### CROSS-EXAMINATION.

By MR. WALTERS.

There are no swampy places on the South Gooding tract. There are two potholes, if you have reference to them, near the college out about a mile south of Gooding College, of the townsite of Gooding. But I wouldn't call it swampy. Water accumulates there, stands there, due to the irrigation water running in there. There is no natural drainage. It stands there for a certain length of time, and consequently your cattails or flags will grow. I wouldn't call it swampy. It is due to water stand-

ing there long enough to start them. No, I wouldn't call it swampy. The water would have to stand a considerable length of time to create a swamp. These potholes, the same as those on my land, hold water for a certain length of time. Those on my land hold water for from three to four days. Probably there is more water running into those along the road. I aim to hold the water out of mine. They are larger and deeper than mine.

I would use as much water on my alfalfa field in October as in July and August and expect beneficial results. I have 134 shares of water stock. I apply that water on the 105 acres. My shares would entitle me to about 84 inches, and I would want it run on some portion of the field from the first of April until the last of October, and I would apply it all to beneficial use. My land lays such that I can use it beneficially and I try to prevent waste.

J. E. ARKOOSH, called as a witness on behalf of the plaintiffs, testified as follows:

#### DIRECT EXAMINATION.

By MR. BISSELL.

I reside at Gooding, Idaho, and I am a farmer. I have resided in the Wood River country since the spring of 1896, and on the North Gooding tract since the spring of 1909. I now live six and one-half miles northeast of Gooding, at the intersection of sections 10, 11, 14 and 15. I have lived there about a year. Previously I lived on section 24, 5, 14, northwest of Gooding.

I am acquainted with the general character of the soil on the North Gooding tract. It is a formation of lava ash, so I am told. With irregular surface, wavy and outcroppings of lava all over the tract. The general depth of the soil is from a few inches to several feet. That condition obtains practically all over the tract. The underlying strata is lava or broken lava. In digging wells, I have had three wells dug. In two of them after we go through the first strata of rock we found gravel. In one particular well they lost a string of tools. The weight of the bit alone would go right through the gravel, and when it was pulled out the gravel closes. They had to case that to get to the second strata. In one particular well we went down 150 feet and struck water, 20 feet of water in the well, and dried up in three months. We went down again to 190 feet, struck water again, and that also dried up, and after going down to 212 feet then we struck a permanent flow of water. That well is located on the place I now live on. The other wells that I refer to are located on the place where I formerly lived in section 24. The general character of the substrate that I found there was practically the same. All through that belt the conditions are the same underground, practically so. I think that condition is typical of the entire North Side tract. Where I am located at present I am next to the lava and adjoining me on the south right next to the river there are caves, oh, for hundreds of feet; there is

also crevices. You can see down as far as the light penetrates, for 15, 20 and 30 feet, and if the sun is shining bright you may see for 35 or more feet, and the whole stretch of the country here is entirely broken.

I did not, in examining those caves and crevices, have occasion to observe whether there were air currents circulating in those two particular caves. However, there is on another farm I own a single hole, not where water stands, but a regular cave, where a man could go into. There is an air current that comes through that that melts the snow during the entire winter when there is any snow on the ground. And again there is a suction in that. Sometimes the air comes up and again the air goes down. That is on the farm I owned in section 12, 5, 14.

I am familiar with the substrata formation in the townsite of Gooding. Almost in the center of Gooding they are taking gravel from under the first strata, and I went down into the pit to see that loose gravel. I was surprised. Between the two stratas of lava there is a formation of gravel about ten feet or probably a little more, they are taking out commercial gravel in quantities between two stratas of rock. The gravel is a coarse reddish, rather pinkish gravel. It is not the compact kind. In other words, small cobblestones as big as a bird's egg, and smaller. That is the same gravel formation that I discovered on my place where the weight

of the bit would go through it. I thought so, anyway.

I am familiar with the method of providing for the disposal of sewerage. All we have to do is dig a hole until we strike a crevice. That may be ten feet or it may be 20 feet or 30 feet, whatever the case may be, and then there is an unlimited drainage there for all kinds of wastage. The same condition generally obtains on the various farms on the tract.

In my investigations I have not discovered any water table underneath the project at any point. My land is not Carey Act land, but is surrounded by Carey Act places. The soil is now dry, we haven't had any water since last July, and at the present time I am irrigating and have been for the last ten days, from Big Wood River. I am irrigating alfalfa. It is not growing now. I am soaking up the ground preparatory for spring moisture.

I know the general custom of irrigators for the past several years in regard to rotating water. Where the farm units are small and the water users are on a community lateral they have been rotating water, and where the farms are large, say eighty acres or more, they don't have to rotate so much. I tried rotation with the company in 1915, and it was unsatisfactory, because when I was shut off they used my water, and when they turned it on I only got my regular allotment, claiming that the capacity in the canal was not sufficient to carry

the excess amount for all the people under the project. The general custom of the settlers has been to rotate the water, where two farms adjoin, of forty acres or less, but the bigger farmers do not rotate because it takes too long for them to get their first water—dries out. It has been the general custom of the farmers to use their full five-eighths of an inch of water during the time the water has been available during the various years.

I corrugate almost entirely. For each corrugation on the grain I use a metallic tube of five-eighths inch diameter. On the alfalfa I use a three-quarter inch tube, and sometimes five-eighths, depending on the length of the corrugation and how steep the land is sloping. That is for the first year. The second year, when I have a stand of grass, I take out the tubes and put them in new land, and use semi-flood method, that is, I use a one by three board and make a tube and use the water in the main lateral for that particular ground, and take out a spur with from eight to ten corrugations in that, dig a small trench about six inches below the surface of the ground, where the water stands, coming out of the one by three tube, and by having the trench below the surface of the ground the water is flowing uniformly to the corrugation, and in that way I call it semi-flood method. In the new ground, where new seeding is involved, I use tubes exclusively. That is to keep the ground from washing.

I rotate with myself all the time, because I use the entire head most exclusively on one-forty. I have most of my checks numbered going from one to the other, and I use rather a scientific method of irrigating. I have never tried to irrigate with less than five-eighths of an inch. I never had a continuous flow from the first of April to the first of November. In 1916 we had water until the first of September, shut off for about ten days, and then got another run again. In 1917 we had water to about the first of October. In the other years we had water for a shorter period. When we had water only for a shorter period we didn't get as many cuttings. In 1916 and 1917 I got three cuttings, and two cuttings in 1915, the last one was a very short cutting. In 1918 we got two cuttings, and we could have cut the third cutting; it was rather short and I pastured it; in 1919 one cutting and a very small pasture for the second, that is on my own farm. I didn't farm a Carey Act farm in 1919.

I have irrigated my farm in the month of October. In my experience water has been just as valuable in the month of October as any other month, practically, unless it would be the month wherein we mature the grain. In the month of October by putting the land in good condition for the growing of pasture, leaving it in a moist condition for the starting of the early spring crop, the first advantage is we get better crops the succeeding spring, the second, we have a pasture that is worth

from two to five dollars an acre, and the third is, it makes plowing possible for fall, and by fall plowing we raise greater crops of grain than we would if we had spring plowing.

If we have light frosts and there is water on the ground, alfalfa does not freeze. I have experimented with frozen alfalfa, or frosted alfalfa, rather, where the heads would droop two to four inches, and that would be on dry ground, and by putting the water on it before that wilted too far it would straighten up and make a crop, where the land is dry, and the alfalfa dropped, it dies as fast as it droops, and retards the growth of that particular shoot and it would have to restart from the bottom of the ground. Since I have been farming on the tract I have required water in April for irrigating my land in every year but one. That is true generally all over that tract.

We have winds of a high velocity and they are very drying, evaporating winds. If it rains in that country today and the sun shines, and the wind blows, it dries the roads up, and therefore we seldom have any real muddy season. If we had a shower in the morning which would render the roads too slippery for travel, and the sun shown and the winds blew as usual, by that afternoon the roads would be dry.

#### CROSS-EXAMINATION.

By MR. WALTERS.

I have been engaged in farming as a principal or



cupation since 1913, about six years ago. Until that time merchandising was my principal occupation. However, I had farms as a side line.

I am watering my alfalfa now. I don't expect it to grow until the weather gets warm. Ordinarily it begins to grow the latter part of March. My purpose is to soak the ground and give the alfalfa a start as soon as the warm weather commences. The water would be retained in the soil for a period of a month from the present time before the plant will begin to benefit. At this time of the year this soil has water-holding capacities for a month at least. I irrigate in October for the purpose of starting the pasture and leaving the ground in a moist condition for next spring, some of the water will be retained in the soil until the following April and May. This subterranean drainage exists in the winter time as it does in the summer time, however, the water freezes, the land freezes for a foot or more, and therefore it retains the moisture, and when the frost is out of the ground it leaves the land in better condition than it would be if it was entirely dry.

My present ranch is on Wood River. My dwelling house is about eighty rods from the river, and the well that I drilled is about eighty rods from the river. My land is fairly level. Between Big and Little Wood River there is a flow of lava that is not covered by soil, and upon which sagebrush grows and a part of my desert entry runs over

and takes in some of this broken, rough lava. The caves and the crevices that I mentioned were located over on this rough, broken lava. I am not irrigating that. The water I use doesn't escape down these caves and caverns that I mentioned. These caves and caverns are located on waste land. However, they reach under the soil and run all through the under strata of that country, because I have seen the places where a ditch would be going over the ground, and holes would be as big around probably as eight or ten inches across all at once, breaks in the dirt, and the entire ditch has disappeared. I know of one ditch in particular, and it is a lateral of the Idaho Irrigation Company, up by Ed Holmes, and that ditch almost entirely disappeared, went right through that crevice. And I have a place on my own farm that I owned in section 12, not one place, but three places, where I could turn in a thousand or more inches of water, and it would never show up. That is the crevice I referred to when I said there is a current of air comes through there and melts the snow all around, and other times there is a suction and the air sucks through it. When we discover these places where the water gets away, we change the ditch location.

#### RE-DIRECT EXAMINATION.

By MR. BISSELL.

'The white rock that I referred to is from eight to ten inches for five or six feet under the surface. It is the layer next to the soil. It almost invariably

lies right on top of the lava. There are exceptions, however. That condition obtains over the project where I have had any experience. That strata is not impervious, water goes through it.

#### RE-CROSS EXAMINATION.

By MR. WALTERS.

I have filed with other parties on fifty inches of water from a coulee for my desert entry, and I have a contract with my neighbor to use the waste water off of the 160 acres of land, by him, and by him and I filing together in connection, allowing him to use part of my water, and he contracts to deliver me his entire flow of waste water to my ditch, which makes in the aggregate over eighty inches of water that I put on the desert entry. My neighbor gets water from the Idaho Irrigation Company. He contracts to construct a ditch at the lower end of his corrugations on the same contour with the river, and drops that waste water, rather than drop it into the river, drop it into my ditch. In consideration for that I helped him to build a ditch and file on some waste water that was wasted into the river above him. I don't get the water from one neighbor alone. I get it from various neighbors. There is a coulee that comes through the neighborhood. I filed on 25 or 50 inches. I don't remember just what—what I thought was my requirements, at the time, and that coulee goes into Wood River just a little ways above my farm. I pick the water up through that, carry it through this neighbor's ditch,

which I helped build, built in fact. And maybe out of his allotment about 20 or 25 per cent of his water that goes into the ground and evaporates, and the balance probably drops into my ditch. Out of 25 inches I would say from 19 to 20 inches goes into my ditch. When my neighbors receive 25 inches of water they use it upon their lands, they waste off 19 or 20 inches that I receive and apply on my desert entry. That condition as to the wasting of water off from the different farms pertains generally over the North Gooding tract where the land is similarly situated that is similarity of the surface of it. Where the land is more level there is more water consumed and soaked into the ground. The amount of water I received from the coulee varies from 25 to 100 inches of waste water. This I am in a position to pick up and use.

#### RE-DIRECT EXAMINATION.

By MR. BISSELL.

I believe my neighbor has in cultivation about 70 acres from which I receive waste water, that one particular neighbor. He has 120 acres and about 70 acres in cultivation. There must be 200 acres or more that drains into that particular coulee, and I get from 25 to 100 inches sometimes. That includes what I get from my neighbor who owns 120 acres, and what I get from the 200 acres that drain into the coulee.

RE-CROSS EXAMINATION.

By MR. WALTERS.

I don't know how many acres out of the 320 acres from which I received waste water are in cultivation. I know seventy or seventy-two acres is cultivated out of 120, and I think most of the 200 acres is in cultivation.

F. R. GOODING, called as witness on behalf of plaintiffs, testified as follows:

DIRECT EXAMINATION.

By MR. BISSELL.

I reside at Gooding. I am a farmer and stock-grower by occupation. I have resided in the Wood River country since the spring of 1881. I have resided at Gooding and Shoshone since 1889. I am familiar with what is now the Idaho Irrigation Company's project I am familiar with what is known as the Richfield tract and the North Gooding tract and the South Gooding tract and the Dietrich tract. I have been familiar with that country since '89, those particular tracts. I have had opportunity to become familiar with the various tracts of land mentioned. Before the country was settled there I was in the live stock business in an extensive way, and that was what I called my range. The North Gooding Tract was the spring range, and what we called the Marley tract at that time was part of my lambing range. The Dietrich tract was a fall and winter range, and the South

Gooding tract a winter range. During all those years from '89, for 20 or 25 years, I was very active in my business, and was over the ground a good deal. I became familiar with the conditions, through the fact that water was an important matter in the livestock business, and we had to water the water holes and the little coulees that furnished water for spring lambing, and in that way became, I feel, familiar, getting a very general knowledge of the conditions.

In describing the soil on the Richfield tract, I would say, practically all the land up there is sloping in an east and southerly direction. The soil is of a clay or lava ash nature, and I am not able to tell you how deep, yet I know the Marley, or the Burns slough through which the water is conducted at the present time used to be the water course on which my lambing camps were located in the spring of the year. We used to select the places where the potholes were to establish our camps; so I became well acquainted with the general condition as they existed on the tract.

I am not acquainted with the general character of the substrata underlying the Richfield tract, but I am acquainted with the nature of the soil and the general topography of the North Gooding tract. It is rolling. A forty acres may have a slope to every point of the compass. There is no general slope to the country there. It is more or less broken, and may be shifted from the coulees that run through

it. And the soil largely on the North Gooding Tract is of a clay and a lava ash. On the northern slope, at least the northern part of the project, about six or eight miles out from Gooding, the soil is made up largely of lava. The farmers must first gather up the lava rocks—they may be as large as your fist or smaller up to as large as your head. Fences have been built by these lava rocks that are picked up on the farms, great round piles made out of them. Where those conditions exist there is a great deal of small lava that hasn't apparently disintegrated into earth, and it is quite coarse. The land is inclined to be mushy in the spring of the year when you ride over it, when it is quite wet from the spring rains and thawing. A horse goes down into it very readily. There is no firmness to it. It is land that absorbs a great deal of water, owing to the condition that it is made up largely of small lava rock almost like gravel, some of it finer.

I have had occasion to observe the substrata there. I have been interested in two well machines for sometime, one of them for a number of years, and my drills have practically drilled all the wells in that part of the country. That country is made up largely of different flows of lava, we find, one after another. The first one in many places seems to be about 20 feet thick, and you may get clay there for a short distance, or gravel, or broken rock, and you go on down and you find what seems to

be three or four or five different flows in that country. that has been made up from different ages. The gravel that is brought out in the town of Gooding and other places that I have noticed is burnt, showing that the lava must have flown over it after the gravel was deposited there. It is all burnt clear through. In places the gravel is 20 feet thick, yet it all has that burnt appearance.

Referring to the condition of the lava flow, as to being shattered or solid or otherwise, you will find some places where it is solid. We drilled some wells where for quite a ways the flow is solid, and other places where it is shattered and broken. In many of the wells we drilled there is a very strong current of air coming out, one or two so strong that it would blow your hat off, and then others again don't show any air current at all. There is possibly 50 or 60 cess pools or more, maybe 100, I don't know how many, in the town of Gooding. All the sewerage is disposed of in that way; by drilling holes. All the business houses have a cess pool of that kind. We have a very large one for the Lincoln Inn, and a block of business houses all use one of these cess pools that has been drilled, and we have no trouble in disposing of all the waste in that way. We have one well that was the first well that was drilled for the townsite, that is, for water supply, that shows this air current that I speak of. That only occurs, of course, where we strike a large crevice or crack in the lava. I know of one well, or



at least one cess pool or well, that was drilled for waste, not a well, but a hole punched down through the first layer of lava, that the current of air was so strong, there was a barrel set up to the pipe and set down in the ground, so as to keep the earth from caving in around it, and the current of air is so strong coming up into that pipe and into that barrel that it holds the water up until the barrel gets about half full, and it goes off with a loud report, and the water goes down immediately. That is, of course, from this force of air that holds it up.

With reference to crevices, caverns and caves on that project, I will say that the first sewer that we tried to get in Gooding for the laundry, we found, about three feet and a half underneath the surface we run into a cave, and the top of that lava was blown off. That is about two blocks from the Lincoln Inn. I have been in that hole about 100 feet. It is not quite large enough for you to stand erect. I have filled up holes long before there was any townsite in Gooding, from the earth giving way and the water going down into a hole through the ground and into the lava and disappearing. I own the water works at Gooding, and we are not able to get the water system down more than about three feet on an average. In the west part of town we are not able to go that deep. We have to go through the rocks in order to get our system in at all. In all the basements that have been excavated there in Gooding I don't know of one but what they

have had more or less rock to blast. In some places you will find the rock coming up within three feet of the surface, but in the other end of the basement there may be isn't any rock at all. The soil in that country runs all the way, as has been said from nothing to eight or ten feet deep. Very little of it is more than three to four feet, however. The general average of the soil in that country is from a foot to three or four feet in depth.

I have had experience in building or attempting to build reservoirs. I, with my neighbors there, in the early nineties, constructed a reservoir about two and one-half miles above Gooding, and we discovered that it wouldn't hold water, didn't hold water, and had to give up the work. This is what happened: The ditch that was running through the reservoir that we were constructing broke on a little side hill, and ran down into the bottom of what we were going to use for a reservoir, and disappeared in a hole. This all happened overnight, and we discovered that that soil wouldn't hold water. There were other reservoirs built in that country. Roy Jones built a reservoir six miles east of Gooding. tried very hard, filled it several times with water, only to have it empty in a day or two, and had to give up the work. And Mr. Mullins, who lived west, and between Bliss and Gooding, constructed a reservoir and tried year after year to heighten it up, by hauling manure and straw, came to my place to get manure and straw, to fill up the

holes, only to find it impossible, and had to give up the work. I don't know of any successful reservoir that will hold water on the project of the Idaho Irrigation Company, there is none.

I find this is the condition: Water, where it is standing on that soil, that percolation of course being down, as soon as it strikes a lava crack, that lava ash there seems to melt, and the longer that water stays on top of the ground, it opens up apparently and the soil drops from the bottom, keeps dropping down and wasting, and is gone in these cracks, and finally comes clear through to the surface. There are no swamps on the project of the Idaho Irrigation Company.

I know a few places where there is a continuous flow of water into what might be called potholes. There is one south of Gooding, an excavation that was made in building the Idaho Southern. There is another small place, maybe twenty or thirty feet long, that has been made by building up the grade of the road, where the water drains in continuously until there is a few flags growing there; but two hundred yards from there there is a well 270 feet deep, to the east of it; and three hundred or four hundred yards to the west of it there is another well that is equally about the same depth; and in none of these wells that we drilled in that country is there any sign of any water table anywhere until you get down anywhere from two hundred to two hundred and seventy feet in depth. That is very general all over the

tract. And we find a great volume of water that even the big pumps that we have at Gooding never show any effect on the supply. There is the greatest underflow of water in what is called the Big Bend that exists anywhere I think in the arid portion of America. All of what is now the Snake River, or what is Snake River during the months of June, July and August, is practically all made up by the underflow of water that comes out through the Big Bend, starting in just below the Shoshone Falls, and ending at Bliss, about forty miles in extent. All through there there are hundreds of springs and some great rivers. I have examined the Clear Lakes springs. There was an old bridge there that I passed over many years ago, to the Briggs ranch. I was down, I think, four years ago, and found the water running around that bridge and flowing underneath the bridge, all it would carry, so that it was quite hard to go through it with my automobile. And I made an examination, made inquiries, and found that that increase had come about since the irrigation started, or since I had seen it the last time, something more than twenty years ago. That is the only spring that I have examined as far as the flow is concerned. I have seen Snake River dry at the Falls, with the exception of a small creek, and people crossing over the falls on a plank. I have seen a great river down here at Glenns Ferry. That condition doesn't prevail at any other place in Idaho. And we

have a peculiar condition in that soil that doesn't exist any place else.

I have been describing the conditions that exist on the North and South Gooding tracts. I am familiar with the Dietrich tract, also. It is very similar to the North Gooding Tract. It is covered largely with floating lava that must be picked up, that is, quite a portion of it, and the surface is similar to the one I have described in the North Gooding tract. Wherever that floating lava exists the soil is filled through with the flow particles of lava that ages haven't turned into earth particles, and it is coarse soil, and the duty of water there is necessarily low.

I am not familiar with the substrata on that tract. I know whether or not that tract is underlaid with gravel. I know the same conditions exist as far as the holding of water is concerned. Water remains but a short time in the potholes. In my experience as an irrigator and farmer on the Gooding tract I have found it necessary to use water for irrigation during the month of April. I find this condition prevails: Last year more especially we went into the winter with a soil very dry, the water supply having been exhausted along the last of July the year before. The company for some reason or other refused to turn the water on before about the first of May. We had quite a heavy frost in May, and wherever our land was dry the alfalfa was almost destroyed, in fact, I have seen some of the farmers cut their alfalfa

in May, cut it down, in order to give it another start. Alfalfa must be irrigated in the month of April, because if it is dry at all when these frosts come it practically destroys the first crop or hinders it very materially. My first crop was not more than a half a crop last year, owing to the fact that I didn't water in April, and couldn't get water in April, and this I have discovered, and this I have found, that whenever we don't get water down there in April and get started to irrigating, my farm is never right, always dry spots in it; I don't get good yields out of it, because I am not able to do it with the supply of water that is furnished me.

In regard to irrigating in October, alfalfa should always be irrigated after the last cutting. That is usually along in September that the cutting is made, and it is close to the first of October before the hay is in the stack. It is essential to do more or less irrigating in October. The advantages and necessity for irrigating in October are: The one that I have mentioned, as far as the alfalfa plant is concerned, it seems to be a very sensitive plant to frost. When there is plenty of moisture in the ground the frost doesn't affect it, neither in the fall nor in the spring, nearly as much as when the ground is dry. After the frost in the spring of the year you can pick out every dry spot in your field by the burnt alfalfa from the frost. And it is important, in fact, it is a matter of necessity, to have water in April. And most years

in October, not every year. For pasture and for fall plowing it is essential to have water in October. The pasture has a great value if the alfalfa field has been irrigated after the last cutting has been taken off. I am farming about 640 acres, and in times past have farmed a greater amount than that.

I know the general custom of the farmers on the tract in regard to rotation of water. The smaller units of forty acres and less rotate, by exchanging water, or in some cases, the company gives them water half the time, gives them double the amount of water; they are on and off for a period of time. The rotation system on the tract has been developed about as high as it can be. This in the rougher part of the ground, about seventy per cent of all that country down there, fifty inches is about as much water as a man should use. Some parts of the South Gooding project, a larger amount of water can be used to advantage. It is owing to the roughness of the country, the steepness of the country. A too great volume of water used by one irrigator, he is not able to control it and it washes the soil. About fifty inches on the seventy per cent of that country down there is what might be called a practical irrigation stream for economical use, and there is not as much waste to it. I mean that fifty inches is about the head that one man can handle. If a man has eighty acres or more he usually uses all the water he is entitled to in a single stream in applying it to the land. Fifty inches

per man is about the maximum head that he can properly use on the steep slopes that is down there and take care of it, and this head must be set at night and at other times, and he can't let too great a volume of water go down over the steep slopes without it washes, so that is a practical head of water on a large part of that project down there.

With the reference to the wind conditions, we have a good deal of wind in the spring of the year, during March and April and May, and then we have some wind periods again in June and July, and some that may stop us from haying from one to three days at a time. Always following a rain in that country in the spring of the year or during the summer there is a very high west wind sweeping over the Snake River valley. We have learned by years of experience that rain does but very little good. We get but very little benefit out of it, it often doing more harm than good, because men depend on it too much and don't irrigate sometimes when it has rained. The effect of the wind is to absorb the moisture very rapidly, that has been applied to the ground by irrigation. I think the best example that might be told of the effect of a rain is this. We find unless the highway district gets out early in the morning after a rain that the ground dries up so rapidly that the dragging of the road doesn't do any good at all. I couldn't speak from experience so far as crops are concerned, because I have learned not to pay any



attention to rain. I irrigate all the time, must do it to get the full yield.

I am familiar with the flood-water conditions of the Little Wood River in the spring time. In co-operation with the Oregon Short Line and the Idaho Southern Railroad Company I took steps to obviate the flood condition at Gooding. We have co-operated for several years. For years during the springs, the high tide years, at least, a very serious condition existed at Gooding, so much that the Oregon Short Line was troubled a great deal by the water flowing down by its track and the section house and on down into a big fill. Work trains would often be there for two or three weeks at a time hauling in rock to save that big fill. The town became flooded to such an extent that it became necessary to do something. And the Southern Idaho Railroad Company was all under water at one time, by this flood. The Short Line and the Idaho Southern and the townsite of Gooding joined, each bearing a third of the expense, and built a canal about five miles east of Gooding. It is fifty feet wide on top, forty feet in the bottom, seven feet deep, the thought being to convey this water over into Big Wood River and divert it in that way. About three quarters of a mile of canal was constructed for this purpose. I have seen that canal running bank full, and never a drop of it ever reached Big Wood River. There is a broken piece of lava in that part of the country, and

it all spills out and is all lost in the lava beds, and we haven't had any flood, because this canal takes care of the flood waters since that time. I think everybody traveling on the Oregon Short Line can remember the floods at Gooding. I have had to swim a horse to reach the depot. We were attempting to divert the flood water of Little Wood River into Big Wood River in the high water season, and constructed the canals I referred to, and it was all wasted and lost in the river bed. The canal turned the water into Big slough, expecting that it would reach Big Wood river, but it never reached it. It went through the lava.

#### CROSS-EXAMINATION.

By MR. WALTERS.

A the place where this canal that I have just mentioned was built there is not much soil, some sagebrush. It does not go through typical farm land. The condition that prevails in the section where the canal was built does not prevail on the surface where the farm lands exist. A lava stream or flow maybe three or four miles wide exists between Big Wood River and Little Wood River, for a distance maybe 20 or 25 miles in length, and this canal that I speak of is built across this lava flow. The farm lands join it, just across the railroad tract and again east of this project, around it. I own forty acres through which this canal passes before it reaches the lava field. The point that I made is, that all that country practically is

the same underneath the soil that has been deposited there, as exists in this lava field, where the water from this canal that was constructed disappears. I judge that from the great number of wells that I have had drilled or have drilled down in that part of the country, and from my knowledge of excavation in that part of the country, and from a lifetime experience in irrigating in that part of the country; that is my conclusion.

I have seen a great many basements dug in Gooding and out south of town, yes, I excavated in what we called an old lake bottom. It consisted of about four or five acres of land that was—all through it there was possibly a hundred different small holes, none of them breaking clear through to the lava, but small depressions that would be down about a foot. My thought was that if I could strike a larger crack at that particular place I might redeem this piece of ground. This is the condition that exists there: With the continuous flow of water in this particular place you could not grow an alfalfa crop or a corn crop or anything of that kind.

This lake was created by the overflow of Little Wood River during the high tide water, and created the condition that I spoke of. It still exists. The water is not flowing into it from Little Wood River. There was no waste water going into it. We punched some holes down in there that helped to get rid of the water. Two feet of water would

disappear in there in a week or ten days, in this hole. The water first came out of the Little Wood River, creating this condition I am speaking of, and then some of it came off the surrounding farms. I haven't seen any water in there in the last two or three years. The water is fairly well kept out of it. I made an excavation down there and opened up quite a large crevice and disposed of the water, instead of letting it lay there a week, practically as fast as it flowed into this hole, and disposed of it in that way.

I know of two small lakes on the South Gooding tract—might be called ponds, very small ponds, one on the excavation of the Idaho Southern and one from a road excavation and building a grade where there are a few flags growing. Water drains off the farms to keep the flags growing throughout the year. It is only a small spot, only a few feet. I have in mind depressions in the surface on the North Gooding tract, where the waste water gets from the farms. That condition has existed since they have been irrigating on that tract. I think there are two or three places where flags grow.

Some of the soil on this tract is made up of little, fine broken lava, and after the lava stones are taken off it would leave the soil mushy in the spring. That was only during the spring months, when the snow was melting. That same soil gets very hard and packs almost like clay, as soon as the sun strikes it, but when you put water on it it gets very

marshy. It doesn't retain the moisture at all. It just drops out. In none of that country is there any subbing that I know of, and I have seen a lot of postholes dug along a ditch and remain there all summer, and not a single post hole would show any water in them. The soil is loose enough so that the percolation is down so rapidly that there is no chance for subbing in that country.

Referring to the reservoirs that have been built and didn't hold water, I don't know of any other such conditions in Central Idaho as we have. The Mullins reservoir I spoke about is in what we call the Big Bend of the Snake. It is of the same character. I am aware that the Jerome reservoir wouldn't hold water. It is out from Jerome a ways. The same conditions which I say exist with reference to failure to successfully impound water in these reservoirs exists on the North Side Twin Falls as well as on the Idaho Irrigation project, I think that is correct. When you reach Minidoka, however, you have a different condition entirely. There you find a water table where drainage canals have been built by the government, and there is a little flow there that doesn't exist with us.

I have been on the South Side of Snake River at frequent intervals, on the Salmon tract and the Oakley tract, and I do not take the position that the Idaho Irrigation Company project is windier than those sections, as a whole. It is a part of the great valley of the Snake, which the winds sweep

over. I don't think there is any difference at all in the windy days or the velocity of the wind, on the Idaho Irrigation Company project and other places of the Snake River Valley.

The reason I give for irrigating in April on the South Gooding tract would apply wherever frost occurs during the growing season. Some years in April. This year we must irrigate down there in March. I think it is correct that on the Richfield tract the snow and ice in some years is not out of the canals the forepart of April to permit water passing through them. My experience on the Richfield tract is: and I used to commence lambing about the 5th of April, that about that time I could go up there safely and find fairly good grass there and weather conditions. There would be some banks of snow left. Usually it is safe to say that snow is on on the Richfield tract by the first of April. There are years in which there are exceptions. I think it may be true that snow and ice at the head of the canals of the Idaho Irrigation Company in April have blocked the canals and not permitted water being taken from the reservoir. The South Gooding tract, however, obtain its supply of water from Little Wood River, augmented by supply, when necessary, from the Magic Reservoir, and in April it would be entirely possible in the usual year to irrigate the South Gooding tract from the excess flow in Little Wood River. I would say about half the time,

the latter part of April at least, when the old rights commence using water along up Little Wood River and there isn't any flow of water into Silver Creek, all the waters in Little Wood River are—there is only an occasional year that Little Wood River empties into Silver Creek. Now, in the dry years at least, and they have been about half with us over there, it is necessary for them to commence irrigating all along Little Wood River sometime in April. When they do, then we must have water out of the Magic dam in those dry years.

They don't use as much water in April as in July and August. The soil evaporation isn't as great. We have a little rain sometimes after the ground is irrigated that helps a little, of course, on the surface. The atmosphere is entirely different in April than it is in July or August. There is but very little difference between the Dietrich tract and the South Gooding tract as to irrigation in April. They are a little later than we are. We are something like 400 feet lower than Dietrich. There is a little difference in the spring, the conditions of the weather. The snow lays a little longer there than at Gooding.

HARRY S. ELLIOTT, call'd as a witness on behalf of the plaintiffs, testified as follows:

**DIRECT EXAMINATION.**

By MR. BISSELL.

I am a farmer. I live eleven miles northwest of Shoshone in section 31, 4-17, on the North Shoshone

tract. I have lived there since September, 1911. I know the general character of the soil on that tract. It is commonly known as lava ash, with quite a bit of lava float and lava outcrop. As to the depth of the soil, in the cistern that I built, root cellar and ice pit and on the main canal that runs through the place, it averages from nothing to five feet. Five feet is the deepest I have found.

I am acquainted with the surface topography of the North Gooding tract. Most of it in our particular section is very steep. The general fall of the country is to the southwest. However, I irrigate in every direction, except straight east. Some of it is very steep, and the corrugations are necessarily very short. I am familiar with the underlying subsurface. I have, I believe, about twenty acres of the so-called subsurface that is above the ground on my place. That is shown from the fact that the Idaho Irrigation Company has taken out twenty acres on one hundred and sixty—of course a large part of this was taken out by the canal, but a large portion of that is lava rock, and evidently where it outcrops it is the same nature throughout, and over that place where it is above the surface there is large fissures and cracks and very small caves; but this lava rock will come up in places, and in fifty feet it will rise probably fifteen to twenty feet above the ground. One twelve-foot cistern I have there at the lower end it is five feet to



the lava, and at the upper end it is two feet, within a distance of twelve feet.

The lava is cracked and full of fissures. To the best of my knowledge the substrata of lava on that tract has fissures, cracks or crevices or caves in it. I have observed the kind of soil through which the ditches and laterals of the company pass in that section of the country. Most of the canal there runs through what is known as an old natural coulee. I believe it is what they call the old Gooding ditch; I am not sure of that. Below my place they start to make the banks, but through my ranch and for three miles above it runs through this coulee, and a large portion of that distance the bottom, when the water is off, is very rocky and rough. Some of it runs over evidently flat lava rock. I have one ditch that I have trouble with practically every year. I have moved it three or four times. It will evidently hold sometimes for two and sometimes for three weeks, and all of a sudden the bottom drops out.

I have had a good deal of experience measuring wind, and I would say that I have seen it blow as high as fifteen and even twenty miles; average from twelve to fifteen miles. It generally comes up about the time the sun does in the summer and continues until sundown, and sometimes reverses and blows at night. The effect of the wind on the moisture seems to be to make the evaporation very great.

At what time we need water first in the spring depends entirely upon conditions. There have been one or two years when we have had a little snow, just as we had three years ago, it wasn't necessary to irrigate, and we started about the 10th of May; but as a rule I like to start, if I can, along about the forepart or middle of April at the latest. I require water up into October, towards the latter part. I have made experiments with irrigating alfalfa in October. I had one piece of land, I took a piece of about eight acres. The whole piece, the conditions were near the same over the whole piece, as I could find on the place, and I irrigated half of it. I started the water on it on or about the 15th of October, and the other half I didn't irrigate, and the first cutting the next year, I measured the hay, and the yield on the part that had been irrigated in October was just a few pounds more than a half ton more than the half that had not been irrigated.

When I can get it I use about an inch per acre for the irrigation of my land, but I haven't always had it. I have been using all of the water that I could secure from the company, an inch when I could get it.

#### CROSS-EXAMINATION

By MR. WALTERS.

There are 207 acres in my entire entry. I have about 120 in cultivation, or has been in cultivation. There is about 100 in cultivation now. I have 173 shares of water stock. I have about 34 acres of

waste land. It is lava rock outcroppings. When I went to build my cistern I took a two-inch pipe and made tests around there for an area of probably three different feet each way from the house, and endeavored to find a hole, and when I got this hole five feet I started the cistern. But I tested out thoroughly to find the steepest place I could.

My place is about a mile from the foothill. I am about a mile or a mile and a quarter from the rough, broken country that can't be irrigated. There is a piece in there—the segregation jogs, and there is one hill in there, and then about half a mile to the main butte. From the edge of the segregation there is a large hill that rises up probably comprising 25 or 30 acres, and the other side of that there is a little valley probably half a mile wide on to the main butte.

F. R. GOODING, recalled on behalf of plaintiffs, testified as follows:

#### DIRECT EXAMINATION

By MR. BISSELL.

Scarcity of labor is not the only objection that I have to a rotation system. I thought I stated that rotation was developed already on the Idaho Irrigation Company project about as far as it could go, that the smaller units were rotating; that a ditch of fifty inches of water on turn to two men on forty acres of land apiece, where they doubled up their water, was a practical stream for one man to handle, on account of the steepness of a large por-

tion of the project in the nature of the soil, which I think might better be described by saying that it is something like sugar, that it just melts, especially when it is new, with water on it. I say that is a practical head, because the man on a forty acre farm does his own irrigating, and does it in half the time that he can with a smaller head, and it gives him an opportunity to do other work, and for that reason I called it a practical stream, and that part of it has been developed. I know of two community ditches down there where one man is employed to do the irrigating for all the people who own interests, some of them for small tracts, two and one-half acres and five acres and ten acres.

The effect of applying a larger head of water for this, you can only put on so much water without its melting, and the soil, washing it. If it gets away at night and all gets into one corrugation or anything of that kind, a great coulee is washed down through the soil and great damage is done.

I stated I have been acquainted with the Wood River for the past 39 or 40 years. That stream has its high tide. It has its seasons when there is a large volume of water flows down it, and then occasionally there is a year that it is very dry. In 1889 Big Wood River flowed down by Gooding about two days or three days; a very small head, not enough to reach what we call the Malad Springs; no part of it ever reached Snake River at that time. In 1883 it was a light water year,

and I think '93 was a light water year. I think '93 was the year we started the case to adjudicate the water of Little Wood River. I was a party to that suit. Only one year since I have lived in the Wood River country have I known this stream to be practically dry during the entire year at Gooding. The other two low-water years that I referred to there was some flow there. Just how much I am not able to say, but they were light water years.

I kept a dairy herd on the Idaho irrigation project to supply my own hotel at Gooding, but owing to the shortage of water I was not able to maintain a pasture, and disposed of all of them with the exception of three cows. I know many of the farmers at one time established dairy herds on the tract. Several carloads of dairy cows were shipped out of the country this last summer. Shipped to Nampa and other points. I have endeavored to raise sugar beets on the Gooding tract on two occasions. They have been a failure. Last year I had 95 acres of beets, and there was 52 tons of beets shipped off of the 95 acres. That was only a small portion of it that was harvested at all. There was no water to mature them. That is why I was unable to grow them.

#### CROSS-EXAMINATION

By MR. WALTERS.

I think the sugar beet crop was short pretty generally all over the state last year, but I think no one had such a failure as we had. I said the soil on the

Idaho irrigation project was very light, and inclined to melt away when too much water was applied to it. That is not true of the South Side Twin Falls and the Salmon and Oakley projects. They have a different soil entirely to some extent, and the lay or character of the topography is entirely different than that of Gooding. There is some parts of the South Side and Salmon where the soil is much similar to that of the Idaho Irrigation Company's project soil. I wouldn't say it is any lighter. I would say that some of our soil is as light or lighter than that on the South Side, and owing to the roughness of a large portion of the project washes unless there is great care taken in irrigating. I think the Oakley soil is entirely different than that of the South Side. The Salmon River, there is some difference in that soil. That is a little heavier than the soil as I have seen it around, laying up close to the foothills and the soil on the South Side.

As an executive of the state I had something at one time to do with the approval of the plan of the Idaho Irrigation Company. It seems to me it was in 1906. I am not quite sure. The short water years that I mentioned were in 1883, and 1889 was a real short year, the only year that I remember that the water didn't flow down by Gooding. The other, I think, was 1893. I may not be correct in that. The three occasions that I have in mind when the river went dry once and was very short upon two other occasions, were prior to 1906, when I had

something to do with the approval of this project as an executive.

JOHN EDHOLM, called as witness on behalf of plaintiffs, testified as follows:

**DIRECT EXAMINATION**

By MR. BISSELL.

I am a farmer and reside on the North Gooding tract in sections 6 and 7, 5-15. I have resided there since 1909. I am acquainted with the character of the soil on the North Gooding tract. It is a light lava ash as you go further from Gooding, further to the hills, there is lava ash and more rock, loose rock. In places it is quite deep. It is irregular.

Where I tried to dig a cistern it isn't more than two feet, other places there is hardly any, and other places it is five feet, where I tried to dig a cistern and make a cellar about five feet. Of course there were rocks, all the way down, loose rocks, kind of hard, cemented in like. When we get through this soil we find all lava rock as far as I have seen, where I dug for the well there was two feet of dirt on top and lava rock underneath. The lava rock all cracked up. There are cracks or holes in the lava into which the water escapes. There are two on my place. In the pasture I filled that up, packed in with small rocks as close as I could and then I hauled straw and manure on top of that, and then I leveled off the knolls and made it level, and the first year it leaked, then I got it practically stopped so that I can run water over it on the pas-

ture. And there are several places like that on the North Side. A similar condition exists on that tract.

I like to have my irrigation water in the spring as soon as they turn it in the ditch, if I can get it, the first of April it is much better. In that particular place on the North Gooding side it takes so much water, so I have to irrigate it from three times before I can get a good cutting of hay, and part of it I irrigate it four times, and then it prevents it from freezing. Lots of times it freezes when the alfalfa is six inches high and there come a freeze, it practically dies out, so that you either have to cut it and get rid of that and start in new, but when you irrigate it and keep it wet it never does that. That is the reason I generally have a good crop. I irrigate the alfalfa three times, if I have water, so that I can get over it, and part of it, in experimenting when I first got there, I irrigated it four times, because I had more water and not so much in, and then I could get better results out of four times than I could out of three times. I require water for irrigation in October. When we get three cuttings of hay, if we have water so we can get three cuttings, we have to put the water on then right away, if we get a good pasture for the sheep or stock and that is a big value to me. About 55 or 60 acres of my land out of 76 is in hay.

Generally in the spring we have a lot of west wind, more than I would like to have. It doesn't



take it long to dry out the land. If there come a rain for a day or so it don't do much good to the ground because it just keeps blowing and drying it up. It is not very often we get a rain anyhow. I have been applying to my land the full five-eighths of an inch; and then some, if I had it. Before I got all my land under cultivation I applied more than five-eighths of an inch to the acre, and I considered I got better crop.

In regard to rotating water, some of the farmers that have forty acre tracts used the community ditch. Where they can I think they rotate more or less. I don't rotate with anybody. I use the water on all of it myself. I take it out in different places and rotate it on different parts of the farm. That is the custom more or less on that tract.

### CROSS-EXAMINATION

By MR. WALTERS.

I have been using and applying my five-eighths of an inch to each acre during the irrigation season when I could get it, except sometimes when it was a shortage in the reservoir, and I wanted to save it, I had the ditch rider shut it off for a few days when I was putting up hay or something, telling him that I would get that much more when I turned it in again. Sometimes he would give me that much more when he turned it on again, and sometimes it wasn't there to be had. I don't think the state engineer has told the farmers anything about how they should rotate among themselves, where they

had the community ditches I think they did that themselves.

LEWIS JOHNSON, called as a witness on behalf of plaintiffs, testified as follows:

#### DIRECT EXAMINATION

By MR. BISSELL.

I live on the Richfield tract in sections 31 and 32, 4-19. I have resided there since the fall of 1908. I am familiar with the character of the soil on the Richfield tract. It is what they call a lava ash. with some clay in it. The surface topography is irregular, it is rolling and irregular. The soil runs in depth from practically nothing to ten feet. Lava rock lies underneath the soil. I have dug a well and two cess pools on my place, and the well has a great current of air coming out of it, and in fact both cess pools have. The rock is all shattered. Wherever I have worked it has been full of seams. The water that gets into these seams or crevices goes down and disappears.

I use water for irrigation purposes in the month of April. Most generally the alfalfa needs water as soon as you can get it on it, in order to start it and keep it from freezing. If the ground is anywhere near dry it will freeze. I use water for irrigation purposes when I can obtain it in the month of October. I use it for fall pasture and for plowing. I have irrigated by a system of rotation only one year, when the company put it in vogue. I think the general method of handling water on that

tract is by corrugations, using the stream that they are entitled to. As far as I know, the men who have small units like forty acres do not combine their allotments and use the water by rotation.

The wind blows a great deal. It dries out the water applied to the land.

S. T. BAER, recalled as a witness for plaintiffs, testified as follows:

**DIRECT EXAMINATION**

**By MR. BISSELL.**

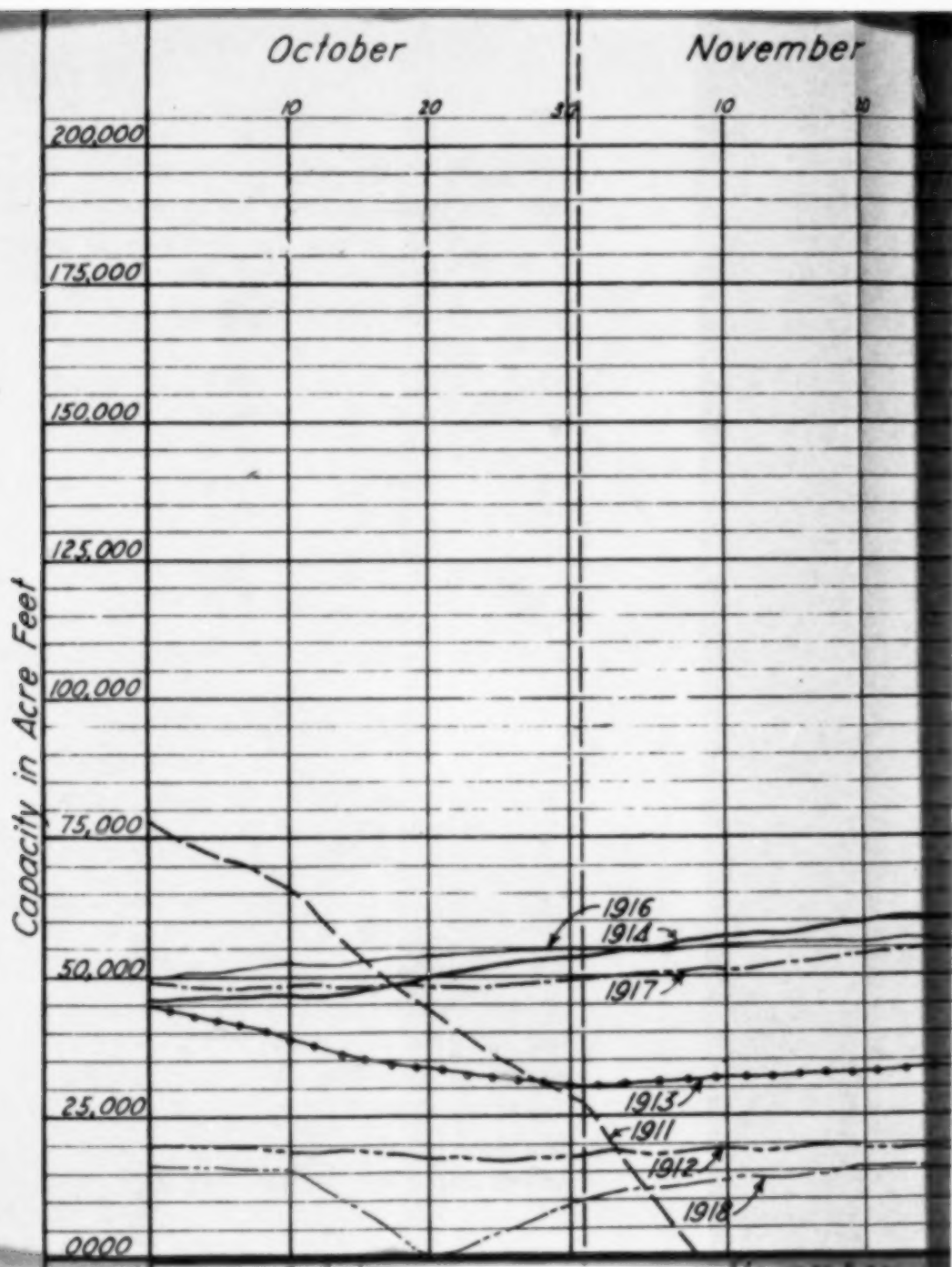
I have the information requested when I was on the stand before, showing the amount of water stored in the Magic reservoir each year. Blue print marked Plaintiffs' Exhibit No. 10 is a hydro-graphic chart showing the quantity of water in the Magic reservoir in acre feet for the years 1911 to 1919, inclusive. It shows the quantity at any day that was in storage, or the maximum amount at any one time that was in storage. These records are not official, except for the years 1918 and 1919, from our department, the data for the years 1911 to 1917, inclusive, were obtained from the records of the Idaho Irrigation Company. For the year 1911 the maximum quantity in the reservoir was a little in excess of 200,000 acre feet. That was on May 17th. That is the total quantity in the reservoir on that date and without any allowance for evaporation or seepage. In 1912 the maximum occurs on June 16th, when there was 136,000 acre feet in storage. In 1913 the maximum was on

June 22d, when there were 172,000 acre feet. In 1914 the maximum was on May 12th, 195,000 acre feet, which condition was maintained for almost a month. In 1915 the highest amount in storage was on June 5th, 84,000 acre feet. In 1916 on May 12th, a maximum of 194,000 acre feet. In 1917, a maximum of 205,000 acre feet was reached on July 1st. In 1918, from May 1st to May 12th, there was 145,000 acre feet in storage. In 1919 the maximum storage was obtained by May 8th, 138,000 acre feet.

In 1911 the reservoir was estimated to hold, according to the prints on file in the office, from 195,000 to 207,000 acre feet, I believe, and that figure has been accepted until the time of this survey I mentioned a day or so ago, wherein we took the capacity to be 195,000 acre feet with this five foot raise. The five foot raise wasn't on at the time the report shows there was 205,000 acre feet in there. Until proven otherwise I would say that the actual capacity with the reservoir full was practically 177,000 acre feet prior to the time the spillway was raised. From my own knowledge, I don't know that the reports prior to 1916 showing more than 177,000 acre feet in storage were erroneous, but according to our surveys they are erroneous.

Chart referred to by the witness and marked Plaintiffs' Exhibit No. 10 was admitted in evidence, and is as follows:

Whereupon plaintiffs offered in evidence as



ember

December

January

February

Mar

20

10

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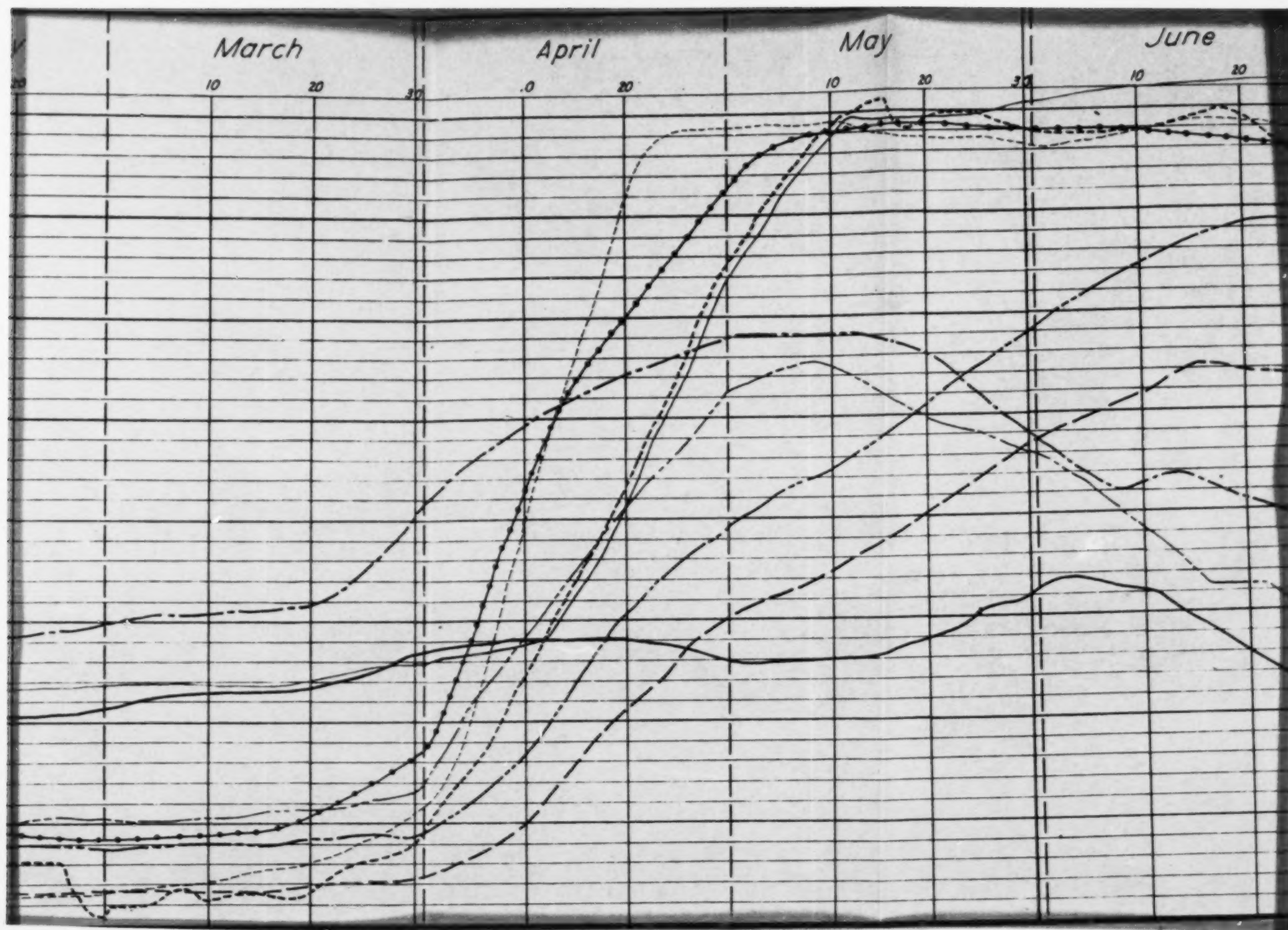
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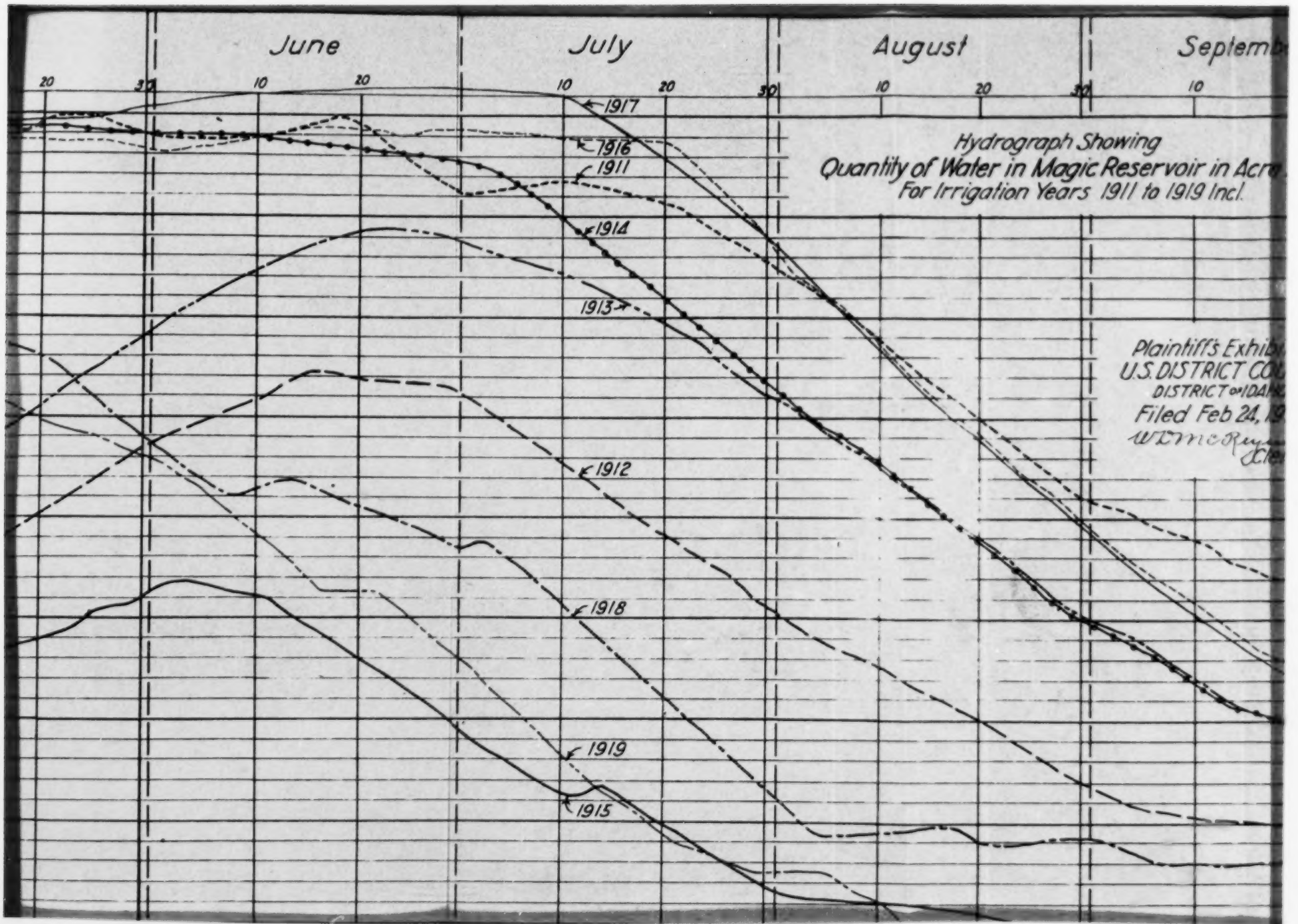
LEGEND

|         |       |   |
|---------|-------|---|
| 1911    | ----- | a |
| 1911-12 | ----- | a |
| 1912-13 | ----- | a |
| 1913-14 | ----- | a |
| 1914-15 | ----- | a |
| 1915-16 | ----- | a |
| 1916-17 | ----- | a |
| 1917-18 | ----- | b |
| 1918-19 | ----- | b |

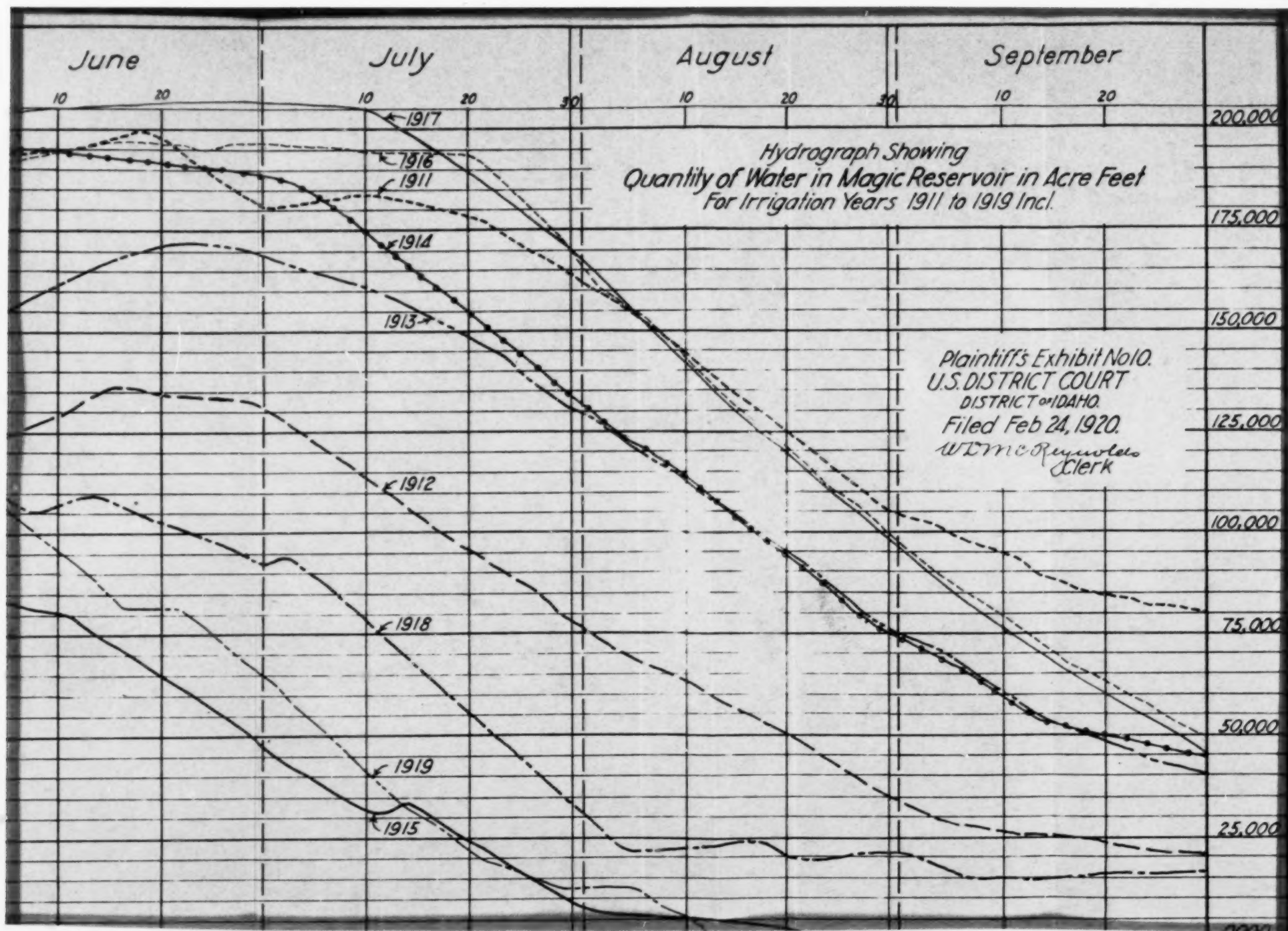
From Company Records "a"  
Quantities from State Capacity Survey "b"













Plaintiffs' Exhibit No. 11, the table showing the annual precipitation at Gooding, Richfield and Shoshone, as shown by the reports of the U. S. Weather Bureau. Said table is as follows:

| Year.      | Gooding. | Richfield. | Shoshone. |
|------------|----------|------------|-----------|
| 1909 ..... | .....    | .....      | 16.10     |
| 1910 ..... | 7.68     | .....      | 7.47      |
| 1911 ..... | 11.43    | 12.72      | 12.87     |
| 1912 ..... | 11.49    | 12.06      | 9.73      |
| 1913 ..... | 8.61     | 10.87      | 8.85      |
| 1914 ..... | 6.61     | 8.26       | 6.89      |
| 1915 ..... | 9.55     | 11.58      | 10.48     |
| 1916 ..... | 9.38     | 11.29      | 10.14     |
| 1917 ..... | .....    | 9.97       | 7.88      |

JOHN E. BADLEY, being recalled as witness for plaintiffs, testified as follows:

#### DIRECT EXAMINATION

By MR. BISSELL.

I was in the employ of the farmers on the Idaho Irrigation Company project as their engineer from October, 1915, until April 6, 1919. It was my duty to check up on the water deliveries and make a general study of water supply and completion of the system, and different things pertaining to the farmers' interest. In that capacity I became familiar with the entire segregation, and with the size and capacity of the main laterals of the irrigation system, and the method employed by the farmers for irrigation of their land. On the Richfield tract, on the community laterals and where it was

possible, anywhere from a forty acre unit, they would rotate it as far as possible. Those who had eighty acres or larger units, where the land laid so that they could get the highest beneficial use of the water, the farmers would rotate, and where it wasn't the best method they rotated it themselves by taking all of the water on forty acres and then switching it to the others. Such system of rotation has been adopted on the Dietrich, North Gooding, and South Gooding tracts.

So far as the farmers have got their lands in condition, where they can rotate, and understand the benefits, the system of rotation as used by the farmers has been developed as far as possible on that project. There is occasions where they have not done it, through community differences or differences among themselves, that always comes up in water cases. The system is not built of such capacity that it would permit of tract rotation or system rotation. There is lack of capacity in the main canal. The main canals are not large enough to rotate between the tracts. They are not built of sufficient size to rotate even among the main laterals. By that I mean that under the system as it is now built, it would be practicable to rotate only as between users upon a single lateral. The larger laterals out of the main canals covering a certain tract or district are not of sufficient size to permit rotation between the laterals. Only between the farmers, but if there were half dozen farmers

upon a single lateral they could rotate among themselves. The full capacity of the canals is used in delivering water by the continuous flow method.

#### CROSS-EXAMINATION

By MR. WALTERS.

The tract rotation—if you take the Dietrich tract, for instance, and were going to rotate the Dietrich tract with the South Gooding, the Dietrich tract isn't large enough to carry double the amount for half the time. The same would be true of the Richfield tract and either of the other three. Likewise, there could not be rotation as between some of the main laterals. The main laterals are combined to carry the amount of water to serve the land under it upon the basis of five-eighths of an inch to each acre of land to be served, and you could not put double that amount of water in the lateral. However, of the community laterals there is nothing to prevent the users themselves taking twice their amount of water for one-half the time, as among themselves, and in most cases on the community laterals they do that.

In 1916 and '17 there were several of the main laterals and canals that were not of sufficient size to carry the water down even for a five-eighths delivery, and there was a great deal of contention and trouble coming to my attention because they couldn't get the water even in those good years. I wasn't on the tract in 1919. Judging from complaints that have come in from the past year, 1919,

during the irrigation season some of the canals that were insufficient in size have not been enlarged. I haven't seen the report from the office of the State Engineer that the system is more than 99 per cent completed. All I saw was in the paper, regarding it.

### RE-DIRECT EXAMINATION

By MR. BISSELL.

From my observation and knowledge of conditions upon this project while employed there, I know that the farmers were actually using, when it was available, all the water they could get through their headgates. All that was delivered to them. I have examined the various farm units on the tract to ascertain whether or not this water was being retained on the land, and beneficially applied. I have been all over the project during the irrigation season of the three years. Where the farmers were getting their full five-eighths of an inch of water at their headgates, in some instances they were getting a fairly good crop. In other instances,--for instance, a man with forty acres, isolated, where he could not rotate, the water measured half a mile from his farm, was not sufficient to irrigate his forty acres at any of the seasons there. Several of the men who were able to pick up waste water, and the farms situated in a way that they could pick up waste water, the more water they got the better crops they got.

I am familiar with the general character of the

soil on the tract. It is not practical to rotate on this project in all cases. On the steep rolling land, as the majority of it is, a large head will cause the corrugations to cut and ruin the land for farming purposes, insofar as getting over it with the mower is concerned. The length of time that water must run in corrugations depends somewhat on the time of the season, and the kind of a season preceding, as to surface moisture, the corrugation method for taking for instance four acres twenty-five inches on four acres, on the steep hillside would perhaps take forty corrugations, take a smaller head on a hillside, on account of preventing wash; on the flat ground perhaps twenty-five corrugations, and it would take anywhere from four to seven days to get over four acres with twenty-five inches of water. The corrugations ordinarily are from four to six inches apart—it depends on the sand, the kind of soil—some soil it will penetrate through quicker. Practically all of the land on this project is rolling, or hillside ground. From my knowledge as an irrigation engineer there is no other practical method of irrigating that hillside land than the corrugation method.

In my opinion as an irrigation engineer, and based on my knowledge of this project, the land on that project cannot be watered efficiently and effectively for the purpose of producing ordinary agricultural crops with a less amount of water than five-eighths of an inch. The surface waste in the



irrigation of the slopes by the corrugation method is less when you use a comparatively small amount of water. If a larger head were used by rotation the waste would be greater.

#### CROSS-EXAMINATION

By MR. WALTERS.

The South Gooding tract immediately south of Gooding is rolling, with a slope, but it isn't as steep as some of the other lands. The land east of Gooding is steep and hilly; the contour is rather steep; it isn't so steep but it is steep land. I would call steep land anywhere from ten to twenty feet to the mile for irrigation purposes. I don't know the exact grade of the land south of the townsite of gooding and east of the townsite of Gooding. The land on the North Gooding tract, north of the Big Wood River, is steep and slopes to the river; it slopes to the south anywhere from ten to twenty feet. Part of this ground is too steep to permit of rotation. There is hardly an eighty or 160 acre tract but there is part of it that has rolling parts that you could not very well rotate. It is rougher than the western portion of the South Side Twin Falls tract. I have never compared the land to the south of Gooding and to the north on this project with the lands on the South Side Twin Falls project as to grade, and I don't know whether these tracts have this grade that practically all of the western portion of the South Side Twin Falls tract has. My best judgment is that I don't know regarding the



two tracts. On the Richfield tract the surface contour on small portions of it is rather level, with a slope to the east and south. There will be a level portion, but it will only extend for a short ways, and then it is quite rough, and there might be another little portion that is level, but it is rather a steep contour. It is rather excellent land for irrigation purposes. Undoubtedly land must have some grade before you can irrigate it by any method. A grade to land is necessary to be irrigated properly. Flat land will sour and spoil. As a whole the land on the Idaho irrigation project is more rough and uneven than the average irrigation project in Southern Idaho that I know of, except portions of the North Side Twin Falls.

During the time the farmers need the water five-eighths of an inch isn't really sufficient to raise a maximum crop. That is, where they use three and one-half acre feet of water and get a crop of alfalfa, they could get more if they used five and a half. I have never heard of any experiments on the Idaho Irrigation Company project where they have reached the maximum amount with the maximum amount of water. The more water they put on the bigger the crop they got on that tract. The number of days the farmer should have five-eighths of an inch flowing to them continuously would depend on the season. Take the present season, they are only asking our office to demand the turning in of the water now. The ordinary season, say from April

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7

1st to along in October, possibly, the first or the middle of October. The seasons vary so that it is hard to place the exact dates. I should say the average season would be about six months. He should have five-eighths of an inch continuously for six months, or its equivalent, if he can rotate it. That would be for raising ordinary crops, five-eighths of an inch isn't enough to raise the maximum crop.

I am now Carey Act Engineer, and I travel over the Carey Act portions of the state. I was on the Twin Falls South Side project last summer, 1919. I am not apprised of the fact that the irrigators received last year only 1.92 acre feet per acre. The crops were fairly good. On the South Side Twin Falls, when they run short of water in the river they draw on storage water, and a great many farmers sacrifice part of their crop in order to save the other, and by distributing over the whole tract it may have gone 1.92 acre feet to the acre. But in nearly all cases where men had potatoes, or something of more value, they sacrificed part of their other crop. That was true on the South Side Twin Falls. I don't know what percentage of the whole crop was sacrificed. I know just from talking to individuals when I was over there settling some water difficulties. I think it was more than one per cent of the entire crop. With a second foot of continuous flow on eighty acres there shouldn't be any run-off—surface waste—except on the steep

lands. It would depend altogether on the topography. On rough land, it is impossible to irrigate a rough piece of land, cut up with lava rocks between them without some waste. It is impossible to say what the surface waste would be unless you have some definite eighty acres in mind. All the farmers on the Idaho Irrigation Company tract do not have their land in shape for rotation. Before they put their land in shape to rotate they should first get a sufficient water supply that would justify the cost of putting the land in shape. In some cases they should enlarge the surface ditches upon their farm in order to properly rotate on the community ditches. I would say perhaps 25 per cent of those that could rotate have not done that. It is more difficult to irrigate the steep land when it is first put to crop. After it is cropped it is not so difficult, except on the South Gooding or Dietrich tracts, where it is sandy; where the water would cut down into the roots below the crown of the alfalfa and clover, and cause a loss. It is always more difficult to irrigate steep land.

#### RE-DIRECT EXAMINATION

By MR. BISSELL.

I said the corrugations were approximately four to six inches apart, some of them two inches apart. I have seen them as high as ten or twelve inches apart. I put the four to six inches as a medium. Each man has his own idea about the corrugations, and the kind of soil depends altogether also on the

corrugations. In some cases it is only from four to six inches from center to center of corrugations, and in other cases it would be perhaps from six to eight inches, and a foot, but I chose the two medium sizes. As I say, there is a great many home-made corrugators, and there is some that buy the corrugators, and they set them.

Regarding the soil, some of the looser soil, sandy soil, it would penetratate. It would be anywhere from two inches to a foot, depending upon the man that was putting it in and the kind of soil he had, and what kind of seed he had. Some soil is better than others. And the width between the corrugations depends on the soil. On level land corrugations as a rule are further apart than that. On steep land, where the water goes down, it is necessary for them to be closer together to penetrate by the time the water gets through to save the waste of water. On level land the water will slow more slowly and therefore will penetrate a greater distance than it will on steeper land. On land that slopes from fifteen to twenty feet in a mile I would put the corrugations six to eight or ten inches, depending on the soil.

F. S. HARRIS, called as a witness on behalf of plaintiffs, testified as follows:

#### DIRECT EXAMINATION

By MR. BISSELL.

I reside at Logan, Utah. I am by occupation professor and experimenter. I have gone through

the regular courses at college and university. I have taken numerous courses, of course, in doing this, numerous individual courses. The line of specialization was along the general line of agriculture, with particular emphasis on soils and irrigation and dry farming and related subjects. I attended the Brigham Young University, the Agricultural College of Utah, and Cornell University. I obtained the degree of Bachelor of Science and Doctor of Philosophy. The degree of Doctor of Philosophy is the highest degree that is awarded. I have been instructor of science at the Juarez Academy, New Mexico; instructor in agricultural chemistry at the Brigham Young University; assistant chemist, Utah Agricultural Experiment Station; instructor in soil technology at Cornell University; and later professor of agronomy at the Utah Agricultural College, agronomist of the experiment station; and later director of the School of Agricultural Engineering and Mechanic Arts in the Utah Agricultural College; and since, director of the Utah Agricultural Experiment Station. I now hold the position of Professor Agronomy at the Utah Agricultural College, and director and agronomist of the Utah Agricultural Experiment Station. Agronomy refers to crops and soils, crop production, includes the subject pertaining to the production of crops. As professor of agronomy I have charge or supervision of the instruction work along the lines of soils and crops in the Utah Agricultural

College, and as director of the Utah Agricultural Experiment Station I have general supervision of all experimental work in agriculture in the state.

I have been studying irrigation and soils for fifteen or twenty years. I have been over practically all of the irrigation projects of the United States, Canada, and Mexico, the larger ones. I have prepared quite a number of bulletins on general agricultural subjects, relating to irrigation, soils, alkali, and related subjects, dry farming. I have published quite a number of scientific articles on these subjects in the scientific journals, and several books. I am in a general way familiar with the class, kind and character of the soils in the State of Idaho. I obtained that knowledge through visiting and making studies of the soils in the various parts of the state. At the Agricultural College at Logan, Utah, certain experiments in the past years have been conducted under my direction.

I have visited the experiment stations in practically all the states of the Union, all in the irrigated section, and practically all in the country. My purpose was to examine the general conditions under which they were experimenting, and also to study the school systems and general agricultural conditions. On those occasions I familiarized myself with the experimental conditions at the various experimental stations which I visited.

I am somewhat familiar with the Idaho Irrigation Company's project. I visited the project first

several years ago. Along, I think, in 1913 or 1914; I am not sure as to the exact date; and I have been over it on several occasions since, including a more careful study during last fall. Last fall I went over most of the project in a general way, all the branches or divisions. I made examinations to ascertain the character and quality of the soil. I had a soil augur, and I made numerous borings to ascertain depth of soil, general texture, and general conditions of the soil. I also took some samples for the purpose of determining water holding capacity, my idea being to compare the water holding capacity with other soils that I had experimented with. I am familiar with the general character of the soil of the Idaho Irrigation Company's project, and of each of the divisions of the project. In a general way, from the observations I could make in a superficial way, I became familiar with the general character and condition of the substrata. From my observations I can prepare a diagram showing in a general way the structure and condition of the soil and of the sub-soil. The soil of this project is of a volcanic origin, similar to the soil of all Snake River Valley, as far as the soil itself is concerned. It is underlaid in places with a calcareous hardpan, which overlies a formation of lava rock. In places this calcareous hardpan is not found, and the lava ash soil, the soil proper, lies directly on the lava rock. I examined wherever possible in cellars and basements and wells and

sewers, and from the general surface condition, wherever I examined, I found a somewhat broken condition a somewhat irregular, broken condition of the rock itself. I found the soil to be exceedingly variable in depth, ranging from just a mere sprinkle of soil over the rock to a depth beyond the length of my augur, which was ten feet. Usually, however, I could find the rock with the ten foot augur. Usually it was less than five feet, six inches—a foot—two feet—three feet—four feet—five feet.

I have prepared a chart illustrating the general character of the soil, and the sub-soil, showing its depth which I found as a result of my inspection and examination. It also represents in a general way the surface contour on the project. I will say that it is a diagrammatic map representing a typical area, rather than an exact representation of any particular place. Chart is marked Plaintiffs' Exhibit No. 13. This chart was prepared by me to show the general condition of the project as to surface contour, depth of soil, the contour of the underlying lava rock, and the outcroppings of lava rock.

#### CROSS-EXAMINATION

By MR. WALTERS.

The chart is typical, representing the general condition of the project. The chart represents no particular portion. It is a diagrammatic map. The red is designed to represent the surface of the lava. The purple is designed to represent the sur-



face of the soil, and the green to represent the layer of soil underlying the alva. Referring to the scale on the map, it was thought that each one of these main divisions would probably represent about two feet, and while a diagrammatic drawing of this kind, no attempt is made to draw it to scale, but rather to give a general idea—I might state that I had in mind one of these main divisions—would be probably about two feet. It might be diagrammatic of any farm in any direction on any tract in any direction.

(Chart referred to is admitted in evidence but it need not be incorporated in the record on appeal. It shall be forwarded to the Clerk of the Circuit Court of Appeals for the use of the members of that Court.)

I have conducted experiments to ascertain the duty of water, but largely on one kind of soil, one general type, which I may say, if I might explain to the Court,—that experiments, in order to be of value and under control, need to be conducted on a type of soil, so that there will be but one variable; in order to tell just the reason for an increased yield or anything of that sort, it can only have one variable, so that one type of soil, one general class of soil, is ordinarily used in all experiments of this type. Then, if there is a variation from that, some crop factor is introduced. In a general way I will say that the soil that has been used for what we consider our exact work is a soil of uniform tex-

ture and structure to great depth, thirty or forty feet, with no water table near the surface, good drainage, and without underlying lava or underlying gravel or anything of that sort, so that the soil is able to retain practically all of very large irrigations. That is the general type of soil, of a medium texture. We have, however, conducted tests on soils that are shallow, underlaid with gravel, and other types of soil, but that is more for comparison with this more exact work. The more exact work is conducted on this uniform soil. I have prepared charts graphically illustrating the kind of soil upon which I have conducted these experiments. I may state, however, that the charts I have prepared were prepared as a part of the explanation of a theory rather than to illustrate any experiments.

(Charts are marked Plaintiffs' Exhibits 14 and 15.)

I will say that exhibit marked No. "15" is simply a representation of a very deep soil, a soil such as that on which we have performed our experiments, and practically all experiments throughout the country have been performed on this type of soil. It represents a soil ten or twenty feet deep, of uniform texture, and of uniform surface contour. The exhibit marked No. "14" represents a soil of—shallow soil, underlaid by some other formation, but a soil that is uniform at the surface, and also of comparatively uniform depth, but shallow.

Charts referred to admitted in evidence. (Said charts need not be included in the record, but may be forwarded with other exhibits to the Clerk of the Circuit Court of Appeals for the use of the members of that Court.)

The experiments I spoke of as more exact experiments were made in Cache Valley, Utah, just north of the City of Logan. The experiments were made on the type of soil suggested by you and previously described by myself. The water was carried to the land in flumes, lumber flumes, and was measured at the head of these flumes, and so arranged that there was no loss after measurements were made, and then the water was put on the land, and if there was any loss from a particular flat this was deducted from the amount that was applied, so that a given amount was applied in each case, and the amount that is recorded as being applied is the water that actually goes into the particular soil that is producing the crop. It accounts for no loss of ditches taking the water to the land, and no loss whatever by run-off from the surface; simply the water that goes into the soil itself, on which the crops are raised. In conducting these experiments the water was measured directly upon the tract of land to which it was applied, at the head of the tract, and it runs in board flumes to the particular piece of land a few rods away.

I have conducted experiments to ascertain the duty of water in raising alfalfa. I have reported

one hundred and seventy-six tests extending over fourteen years. I might explain to the Court that this is a summary of all the work performed during this period, including this present year's results, and included the work conducted under my own direction during nine years, and under the direction of Dr. Widtsoe during three or four years, and under the direction of Professor McLaughlin and Professor Hoganson during two or three other years. It is on the same plat. The work I have to report includes all of the experiments performed on these fields up to the present time.

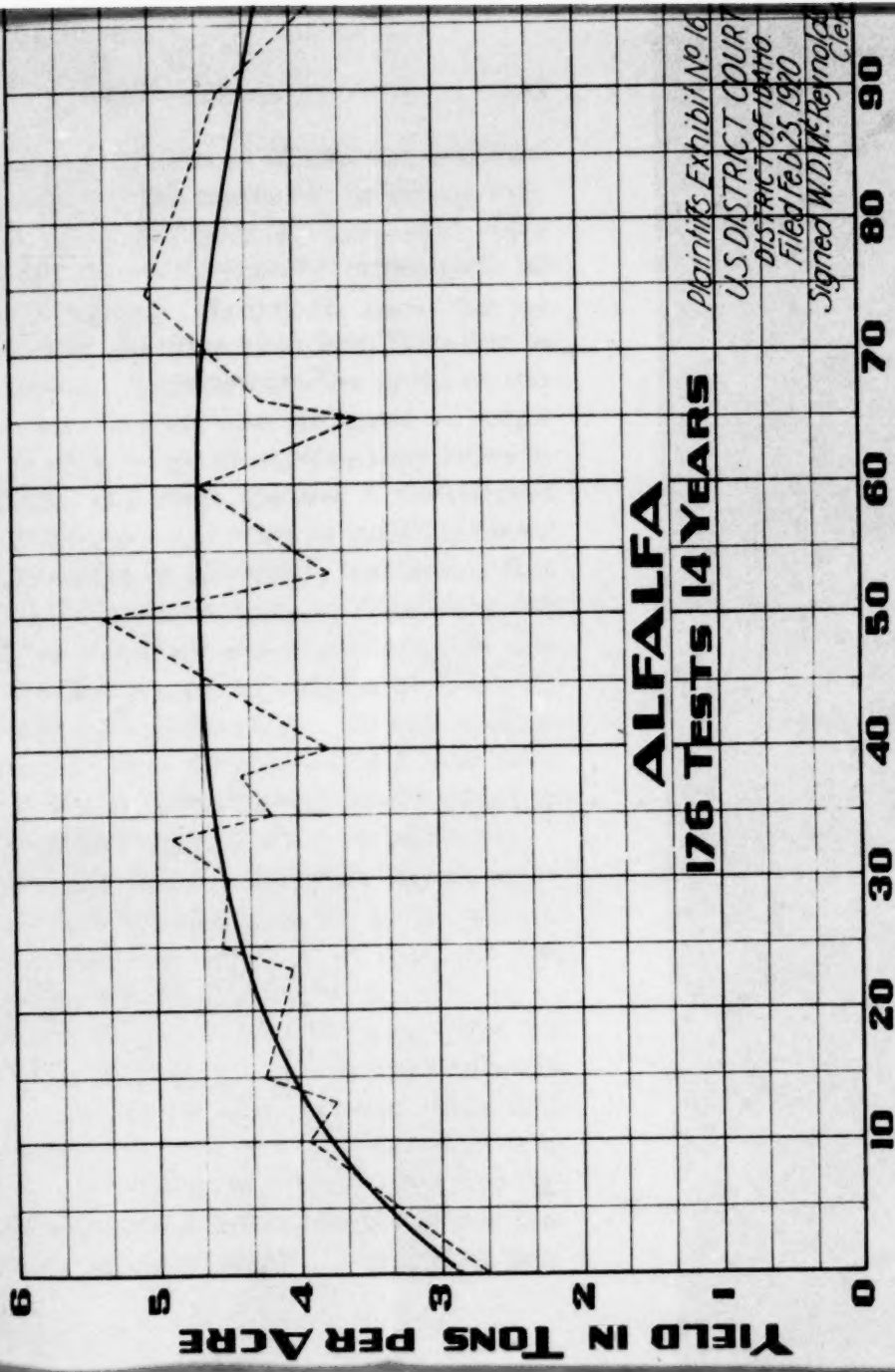
Plaintiffs' Exhibit 16 is a diagram representing the curve showing the yields obtained with various quantities of irrigation water on the tract that we have alluded to.

Chart is admitted in evidence and is as follows:

You reach the maximum at between fifty and sixty-five inches.

I have conducted experiments to ascertain the duty of water in the production of wheat, and for the production of oats, and potatoes. I have prepared charts graphically illustrating the result of those experiments.

Said charts are admitted in evidence as Plaintiffs' Exhibits 17, 18 and 19. (Said exhibits need not be incorporated in the record, but may be sent to the Clerk of the Circuit Court of Appeals for the use of the members of that Court.)



Plaintiff's Exhibit No 16  
 U.S. DISTRICT COURT  
 DISTRICT OF IDAHO  
 Filed Feb 25, 1920  
 Signed W.D. McReynolds  
 Clerk

INCHES OF WATER APPLIED



The maximum amount of alfalfa was produced with fifty inches. That represents the highest individual, but above that point we have some lower quantities, and then at seventy-five inches again we have another increase. So that the curve that we have gives about the same yield from forty-five to sixty-five inches. Below seventy-five inches on this particular soil the yield was decreased. I might explain that when we get as much as sixty inches in this particular soil there becomes a waterlogged condition in the soil. And when we get up to ninety inches, represented on this chart, that means that there is free water on the land considerable of the time, and that it will not soak down as fast as that amount. So that we get a condition of drowning the crop with high applications. On this particular soil then we have the figure that I have mentioned. Of course, I don't believe there is such a thing as a proper duty of water in all senses, I don't believe that that can be stated, because there should be considered such questions as the amount of land available, the difficulty of applying, and numerous other questions of that kind.

Exhibits 17, 18 and 19 were prepared under the same method and under the same circumstances as Exhibit 16, and for the same purpose. This, as I have explained, is a part of a bulletin which is in the press at the present time. The curves and figures are all a part of that bulletin and not prepared for this suit particularly. The highest indi-

vidual point in the yield of wheat was obtained with fifty inches. I may say, however, that that is not typical. That is for comparatively few tests, and since we have a lesser quantity than that decreasing the yield in some cases, it is my idea from the large curve that between twenty-five and thirty inches give the highest average yield of crops of wheat, representing this entire period of two hundred and three tests. As a result of these 78 tests with the irrigation of oats, the highest yield was obtained with 30 inches. I may say here, that these results were not as extensive as with wheat, but the maximum yield on the average was produced by very similar quantities of water. The results for potatoes show the highest total yield at thirty-two and one-half inches of water, which would also represent about the highest average also; the highest individual point, and also the highest average is slightly above that. The water was measured in the customary way, through a Cipolletti weir, and a given quantity applied to the surface of the land, so that it means inches of depth on the land, or applied over an acre, it would be acre inches. As I have explained before, there was no waste water or no other water except what was actually applied to the plate itself.

Q. Now, doctor, applying those experiments to the Idaho Irrigation Company's project, what items of correction would be required to make them ap-



plicable to the project of the Idaho Irrigation Company?

A. I may say that experiments of this kind conducted on an ideal soil are subject to correction when applied to practical results in the field, no matter what that land may be; they are subject to—I may mention some of the corrections—subject first to ditch losses, the farmers own ditch losses, either through percolation, evaporation, or losses through gopher holes or anything of that kind. They are subject also to losses through deep percolation on many soils. They would be subject to any loss that might occur by run-off. I think those are the main corrections that would have to be applied on any land whatever, even on this particular kind of soil, under operation of the farmer. Also the further correction that the farmer is not able to apply the water under as favorable conditions as we in experimentation were able to apply it. For example, we applied it only in the day time, when everything was favorable, and we applied it usually at the time the crop needed it, and we always had water available any day so that it was applied just at the time when it should have been, that is, we could apply it at the time when it should have been. The ordinary farmer has not these conveniences at his disposal, and therefore there must be some correction factor made. We cannot apply these results to water—the thing I want to impress on the Court, which he already understood of course, results of

this kind cannot be applied directly to the water delivered continuously to the farmer at his headgate, without a correction factor.

Q. What would be the factor of correction necessary to apply, assuming that lands on the Idaho Irrigation Company project were identical in character and depth and texture with that upon which these experiments were performed, if the water were applied by the farmer under usual and ordinary irrigating conditions?

A. The corrections that I have mentioned would all apply in this case. There would be two further corrections that occur to me at this time, one being the fact that these experiments were performed under an average rainfall of about eighteen inches, which I believe is about double the rainfall which is received on the Idaho Irrigation Project, on the average. Of course, that varies on different parts of the project. That would mean then that we would have to have a special correction factor for rainfall of probably nine inches. Again, these experiments were performed in a locality with a low wind velocity. The Cache Valley has but very few windy days, and they are unimportant. The Snake River Valley on the other hand, has a high wind velocity, and a consequent high evaporation and high transpiration, which would mean that with an identical soil on the Idaho Irrigation project there would have to be these two correction factors,

rainfall and wind. There may be others, but those two occur to me at the present time.

Q. For the purpose of illustration, I now call your attention to the paper which has heretofore been marked plaintiffs' Exhibit "A," and which you have explained, and will ask you to explain the method of irrigation necessary to such a soil as that.

A. All soil such as that represented on Exhibit Number "14," representing a shallow soil of uniform surface topography and uniform depth, the kind of irrigation it would be necessary to apply to soils of this kind would be one that would wet the soil to its depth, and that would be a light irrigation; land of this kind, and we have a good deal of it in Utah, is irrigated often and with a low depth of application. That means that there can be but little waste in this condition, if the farmer recognizes the character of his soil and irrigates in accordance with that condition.

Q. Calling your attention to plaintiffs' Exhibit Number "15," which you have heretofore explained, I will ask you to explain the kind of an irrigation necessary to properly wet that soil.

A. The kind of irrigation performed on a soil of the quality represented by the Exhibit is not so important as in special kinds of soil, since a soil of this quality is able to absorb whatever water is applied. The soil will hold a light application of water; it will also hold a heavy application of water, and will hold it for the use of the crops. I may say,

however, that in order to get the maximum of use out of a soil of this kind, it would be better to have occasional heavy applications of water, in order that the water might extend to a rather deep zone, so that the feeding zone of the roots would be extended thereby, and the possible yield of crops increased by this increased feeding zone. But with a soil of this kind an irrigation of any kind could largely be retained and used by crops.

Q. Calling your attention to Plaintiffs' Exhibit No. "13," which you have explained graphically represents the general character of the Idaho Irrigation Company's project, will you explain that chart in reference to a relation with the two charts just explained by you?

A. There would be increased difficulty in irrigating efficiently a soil of this type, first, on account of the topography of the surface; wherever the surface of a soil is uniform, particularly where that surface is not too steep, but even though it is steep, and uniform, the water can be applied in such a way that there will be but little loss by run-off. A soil such as that represented by this diagram contains certain areas, certain fields, with a varying grade. The upper end of the field may be comparatively steep, and the lower end of the field comparatively flat, or vice versa, or the middle of the field might be different from the two ends. With a soil of this kind it is difficult to apply just the stream that will soak uniformly into the land,

because it will be, if it is right for the flatter soils, it will be too large a stream for the steeper soil, and conversely, if it is right for the steeper soils, it will be too small a stream for the flatter soils, so that it is impossible to get into the land the water as efficiently as it can be put into the land with a uniform topography. Further, the soil such as is represented in this diagram is of uniform depth, one part of the field being deep and another part being shallow. The deep, or the shallow soil, requires frequent irrigation, because no matter how much is put on in an application it will dry out quickly, because the shallow soil only holds a small amount of water. On the other hand, the deeper soil, if but a small application is applied at each time, it means that the deeper soil is wetted only to a shallow depth. That means that the farmer does not have the use of the lower zones of his soil for root growth. The result of this is that the farmer has to water often in order to take care of the shallow soil, and heavy in order to take care of the deeper soil. This inevitably leads to a waste of water, because more water must be applied than can be actually held in the soil. This diagram further represents a condition of an impervious sub-strata that does not hold excess water that may be applied. If soil of this contour and depth were underlaid with an impervious layer, such as a clay or a uniform rock, or a tight rock, I would say part of this water could be held under hydrostatic pressure, and could

be forced to other lands or returned to capillarity after the surface became dry, but with a pervious sub-strata such as is represented here, in any hydrostatic water or free water which is in the soil will immediately drain away, so that it cannot again come back to the soil by capillarity, and cannot be used. So that I would say, for three reasons, soils such as those represented under the project of the Idaho Irrigation Company would have a law duty of water. To recapitulate those reasons: It would be the unevenness of the surface, the lack of uniformity of depth, and the broken nature of the strata under the soil.

Q. From your knowledge of the experiments made as detailed by you, and from your knowledge of the general character of the project of the Idaho Irrigation Company, both as to its surface contour, the character and quality of the soil, its depth, its uniformity or lack of uniformity, and broken condition of sub-strata, what would you say would be the relative duty of water on the project of the Idaho Irrigation Company and upon the lands where the experiments referred to by you have been performed?

A. I might say that from experiments that we have performed on soils that are not deep, and that are not uniform, there can be no question that the duty will be lower on a project similar to that of the Idaho Irrigation Company than it is on land similar to that in which the experiments reported were in.

Q. From your experience as an irrigation expert and director of experiments, and from your knowledge of the general character of the Idaho Irrigation Company's project, assuming that the soil is of a lava ash formation and a sandy lava ash formation, or irregular depth, reaching in depth from an inch, or from nothing to five, and at times eight and ten feet, underlaid with a shattered lava substratum, what would be the proper amount of water to apply thereto for irrigation, assuming that sixty-five per cent thereof was in alfalfa and the balance in ordinary farm crops, such as spring and fall wheat, oats and potatoes?

A. I may say as a preliminary to answering this question—the question is so long that I cannot tell whether it applies directly on it or not. Determinations were made of the soluble salt content and the water holding capacity of the soil at Richfield, and on the North Gooding tract, and they average practically identical with the water holding capacity of the particular soils on which these experiments were performed, so that as far as the soil per se is concerned it is very similar to the soil on which the experiments were performed. The difference is in depth, topography, and other subjects, and basing my answer on this assumption—I might ask shortly what that question was, just in a short way.

THE COURT: What is the duty of water?

THE COURT: On the further assumption that

it is sixty-five per cent alfalfa and the balance in grain, potatoes, etc.

A. Yes. I hesitate to fix any definite duty of water, because it is dependent upon economic, social, and other conditions, that it is impossible to determine, but I should think from the information that I have on the subject that the farmer should have delivered to him at his headgate at least four and one-half acre feet, accounting for losses that would occur in transmission to the farmer, losses that would occur by deep percolation, losses that would occur by run-off, losses that occur by the inability of the farmer to use the water efficiently during all of the twenty-four hours, on account of night irrigation, and also taking into consideration the low rainfall, comparatively low rainfall of this tract, and the comparatively high wind velocity.

A. Dr. Harris, you stated yesterday that you hesitated to fix any definite figure for the duty of water, that it was necessary to take into account certain economic and social considerations. What did you mean by that statement?

A. I meant by that statement that in a question of this kind, involving a tract of land and available water, the thing must be decided somewhat on the line of a compromise between two general ideas. On the one hand, there is the idea, which I mentioned as economic, in which it seems desirable to settle as much land as possible with the available supply of water, there being only a limited supply of water,



and in the interests of economy and general settlement it is a desirable thing to have that water go as far as possible. On the other hand, we have the possibility of undesirable social conditions where the water is spread over too large an area. If it is spread over so large an area that the farmers can only get part of what they need, it is impossible for them to prosper, we get discontented farmers, farmers who are not good citizens because of the lack of content, and we have an undesirable condition, so that we have to choose there between having part of the country unsettled on the one hand, and having dissatisfied farmers, who are not prospering, on the other hand, so that any figure that is given must necessarily be a question of judgment between the two general ideas, the idea being that there is no particular advantage in having a great number of people, if those people are not prosperous, if they are not able to make a living, and are not contented; so that I say it is impossible to put a definite statement as to exactly what should be done without considering those economic and social questions.

Q. Do you believe that four and one-half acre feet of water delivered at the farmer's headgate on the Idaho Irrigation Company project will produce the maximum yield of alfalfa.

A. I do not believe it would produce the maximum crop.

MR. BISSELL: Q. Why?

A. Because under the experiments I referred to yesterday it is shown that under conditions at Logan, Utah, about four and one-half acre feet produced the maximum yields, that is, somewhat higher than that and somewhat lower, in various conditions, but something like it. It was shown that under the conditions of these experiments we had more rainfall and much more favorable conditions, such as in the percolation or the surface losses, and therefore if four and one-half acre feet or something of that general quantity would produce the maximum crop under the conditions of the experiments, it certainly would not produce the maximum crop under the conditions of the project.

Q. Then why did you give this figure?

A. The figure was given because there are other crops on the project, such as grain, that do not require as much water as alfalfa, and my idea was that probably there would be sufficient grain crops with this lesser requirement to absorb the difference due to losses in the water applied to alfalfa.

#### CROSS-EXAMINATION

By MR. WALTERS.

I think if alfalfa were the only crop on the Idaho Irrigation Company project—I haven't thought of this particularly, to have it in mind—I think that it should have at least a foot more than the figure given, at least. It was my judgment that if the project were 60 per cent alfalfa and 40 per cent grains the four and one-half acre feet per acre

should be the duty on the project. That was based, I think, on grains entirely. I believe in the question that was asked some other crops, such as pasture and potatoes, were included in the 40 per cent. That would depend on, of course, whether those crops were included or whether it were all grain. I have been on the Richfield, Dietrich, North Gooding and South Gooding tracts and as a result of the visits that I made, it was a careful study of the project careful with modifications. It wasn't as careful as if I had been studying it for a generation, but it was as careful as could be made in a few days. As careful as I could make in that time, but of course a careful study might include years of study. I was on the project three days last fall. I traveled over these four different areas designated and did that in three days. I suppose I made about a hundred borings of soil conditions, something of that sort. I kept two samples, samples from the Richfield tract and from the North Gooding tract. I took those samples back to my laboratory and determined the water-holding capacity. The maximum water-holding capacity of the soil sample taken from the Richfield tract was 27.9 per cent of water and on the other tract 32.2 per cent, that was by weight, the maximum water-holding capacity. The water-holding capacity of the soil on the Idaho irrigation project is about the same as the Cache Valley soil where I made experiments—the general water-holding capacity and the general

texture. By that I mean the size of the particles was somewhat similar. Of course, in parts of the project, for example, the Dietrich tract, there was considerable more sand than in the soils I refer to, and in certain portions there is somewhat more clay, but take the top soil itself, the water-holding capacity, which is based largely on texture, is very much the same as the soil referred to.

Referring to Plaintiffs' Exhibit No. 17, showing the results of my experiments with alfalfa, it shows that the application of 15 acre inches of water would yield over 4 tons, and that the application of 45 acre inches of water gave 4 2-3 tons. By the application of three times as much water I received but two-thirds of a ton more of alfalfa. If you had bought a hundred inches you wouldn't have received as much, five times or ten times or seven or eight times as much. Had I put the 45 acre inches on three acres instead of on one acre, the result would have been 12 tons. Considering the results of the 20 acre inches out of 176 tests extending over 14 years my average as indicated by the plat is about four and a quarter tons. By the application of double that amount of water on the same quantity of land I got about four and one-half tons, somewhat more than that. And if I put the 40 acre inches on two acres instead of one acre I would get approximately eight and one-half tons.

Referring to the wheat exhibit, by the use of ten acre inches the yield is probably somewhat less than

42 bushels per acre. By the application of double that amount of water, viz., 20 acre inches to one acre, I obtained a yield of about 47 bushels. By using double the amount of water I increased the yield something like 4 bushels. I would explain that you get a fair yield without using any, on account of the high rainfall, as shown by the chart. You carry that on down, you get a fair yield, where no irrigation is applied, but that does not at all interfere with the application of water to an increased yield. By increasing the use of water 100 per cent I increased the yield about 10 per cent. By using 30 acre inches on a single acre I got a yield of somewhat more than 48 bushels. So by using three times the amount of water I obtained a yield of somewhat more than five or six bushels. By increasing the amount of water 200 per cent per acre I obtained an increase in the yield of about 12 per cent. By increasing the water above 15 acre inches for alfalfa and 10 acre inches for wheat the yield does not increase proportionately. Like any expenditure of water or anything else, the first is usually the most efficacious. It never does in anything of that sort. The law diminishing returns enters. It applies in this question as in all other questions. The most economical use, of course, is to use one acre inch of water. Referring to the plats again it appears that by applying 25 inches to two acres, fifteen acre inches to the alfalfa and ten acre inches to the wheat, it would obtain four tons of alfalfa

hay and forty-three bushels of wheat. That would be a duty of  $12\frac{1}{2}$  acre inches per acre.

Based upon my experiments in Cache Valley extending over a number of years heretofore stated and my three days' visit upon the Idaho Irrigation Company tract and on the 100 borings that I made and the two tests in my laboratory I say that in my opinion the duty of water upon the Idaho irrigation project is  $4\frac{1}{2}$  acre feet.

THE COURT: Q. I want to ask you—Professor Harris, how much, under the conditions under which these experiments were made, how much wheat would you say would be a fair yield without the application of any water by irrigation?

A. Your Honor, it is shown on the chart, the yield over in each case is the amount without water, and in this case it has averaged in the neighborhood of thirty-eight bushels to the acre without water. And the same is true of alfalfa. We have nearly three tons without any water whatever. The high rainfall, you understand, and favorable conditions.

Q. Now, there is one other factor that would have to be considered in determining the economical application of water practically upon this tract, and that is the loss, the probable or average loss of water in the ditches, from the point of delivery into the farmers' headgates to the point of application. As I understand, these charts do not take into consideration that element.

A. Exclude all losses.

Q. You, of course, didn't make a sufficient study of the system up here, or did you, to determine what percentage of water delivered at the farmers' head-gates would be lost in the ditches before application?

A. I examined the laterals and the ditches wherever possible, made examination, but my information on that subject would not be as enlightening to the Court as that by someone else who has actually made measurements. I believe some measurements are available for that, so that Your Honor could have that information.

Q. You would have to take that into consideration, however, in reaching your general conclusion?

A. Yes, sir.

Q. And you acted upon information received from others?

A. Yes, reports that have been published. There are published reports available on that.

#### RE-DIRECT EXAMINATION

By MR. BISSELL.

The acre inches which I have represented on the charts are the absolute net amount of water that was available for the crops themselves,—received on the land, and excluding not only the loss in the ditches conveying the water to the land but also the waste by surface run-off and losses due to deep percolation, that might occur, which did not occur, I may say, in this soil, because the soil is so deep that it retained all water absolutely in those quan-

tities given. On the Idaho irrigation project there would have to be added an additional loss for deep percolation and an additional item for increased evaporation from the Idaho Irrigation Company project, that is the surface evaporation, as the water is applied, is slight in the case of the experiments. The surface evaporation would be greater under the Idaho Irrigation Company's project, because of wind.

I stated to the Court that my idea was based, for this particular tract, on published data. This is published in the report of the State Engineer, a part of the report of the State Engineer, and the part is written by Mr. Don H. Bark, who is present. In this, Mr. Bark estimates losses from various canal systems in Idaho, and my familiarity with farmers' ditches in various parts of Idaho, in comparison with the ditches on this particular tract, enabled me to conjecture something as to what the probable losses would be. Then, of course, I am somewhat familiar with similar losses in ditches made throughout the country in a general way.

In the publication issued by the State Engineer of Idaho giving the result of experiments by Don H. Bark, the Idaho Irrigation Company project is mentioned specifically, and that report is one of the authorities which I consulted in this matter. (The report referred to by the witness is marked Plaintiff's Exhibit No. 20.) This same material is contained in another report. This material is bound



up with the report of the State Engineer. In this particular copy it is not a part of the State Engineer's report, but it is the same material here. On page 169 of the proposed exhibit there appears a summation of the losses which might occur. Those are the losses referred to in my testimony. They are such as exist on every irrigation project. I would say in this connection that probably a figure larger than the average would be necessary in this particular project, because I know of no project where farmers' ditches are in a more unfavorable condition for saving water than they are on this particular project, due to the irregularity of the land and the necessity for comparatively long sub-ditches to get around to the particular pieces of land, the unevenness of the surface requiring more ditches than would be required on a project such as the South Side Twin Falls, for example.

Q. In your estimate, in figuring the duty of water, what did you figure the losses were?

A. I didn't make a definite figure as to that. I made those total losses as about a general thing, without going specifically into each individual item.

Q. What were they, Doctor?

A. The total losses?

Q. Yes.

A. I think that probably the Court would be better informed from the record itself than from my estimates of it, and I think he would have better judgment in making up his opinion by examining the

document itself rather than giving my guesses on it.

I have been on the Gooding project or the Idaho Irrigation Company project several times before the time that I made this investigation and examination.

### RE-CROSS EXAMINATION

By MR. WALTERS.

When I was there before my visits were confined to the experiment farm at Gooding and the general vicinity. When Mr. Welch was at the experiment farm I visited it, and he drove me over the project in general, that is, over what would be known as the South Gooding project exclusively. I had not been on the other projects before, except going through. My visit there was primarily because of my interest in the experiments conducted by Mr. Welch.

Q. From your maps and diagrams I have fixed it at twelve and one-half acre inches.

A. There is evidently some difference between us.

Q. No. Your maps and diagrams, I have done that.

A. Yes. I see no reason, however, for it. You might have used one acre inch and had a greater increase, than twelve and a half.

Q. Your answer is, Doctor, that for making the difference between whatever duty you fixed, based upon your plats, and the Idaho Irrigation Company project, is, a loss in the ditch from the headgate to

the farmers' land, increased evaporation, and increased deep percolation, is that right?

A. And increased run-off, due to the fact that it is impossible to irrigate that steep land without having quite a large run-off, particularly from the night water, that is, the waters run at night, and cannot be watched as closely, even though the farmer is with it all the time; he cannot see it so closely, and there will inevitably be run-off.

Q. I called that surface wastage, Doctor, is my term.

A. Well, I didn't understand that.

Q. There are three factors then—

A. Four factors—the ditch losses getting to the land; the increased evaporation; the increased run-off or surface wastage; the deep percolation; and in addition to that there is the factor of rainfall, lesser rainfall; and if I might add that particular factor in connection with the idea you would have me bring out from cross-examination, makes it somewhat misleading, from this point of view. As your questions would tend to make the evidence a little misleading, I suppose the Court would like to have that mentioned. We have here a sufficient rainfall under the favorable conditions to produce a good crop regardless of irrigation; irrigation is simply a supplement. With a little irrigation, a little more irrigation, we get better crops. Under conditions such as we have on the Idaho irrigation project, I should expect very little crop of any kind

without some irrigation. So that these curves I would expect to begin down here some place, and ascend very rapidly, in place of having the same general curve, such as we have here. That would be taken into consideration in interpreting your statements as to the economic duty.

Q. Considering then, Doctor, the difference in rainfall which you have mentioned, the difference in surface wastage, the difference in deep percolation, the difference in evaporation, and the loss from the farmers' headgate to the land, may I inquire of what benefit, in giving your estimate of four and one-half acre feet of water, to you, were the experiments made by you at Logan, what benefit were they to you?

A. They were of benefit to show what a maximum crop would be under a more favorable condition, somewhat on the idea that if a thing is true under a less favorable condition, it would be more true under a more favorable condition; that is, we have a determination under one set of conditions that would be more so under another set of more favorable conditions. It gives a definite figure that we can tie to for correction. That is the only general value it would be.

A. B. TALLMAN, called as a witness on behalf of plaintiffs, testified as follows:

#### DIRECT EXAMINATION

By MR. BISSELL.

I am an irrigation engineer and have been such

for about ten years. I am water master of the Boise River, in the employ of about forty-five canal companies. In 1910, 1911, 1912 and 1913 I was assistant to Don H. Bark. At that time we were engaged in irrigation investigations in Idaho. The result of the investigation was published. Plaintiffs' proposed Exhibit No. 20 is a re-print of the duty of water investigations published in the State Engineer's report, and covering the duty of water investigations in Idaho, which work was carried on by Don H. Bark, who was an employe of the United States Department of Agriculture. It includes investigations on the Idaho Irrigation Company's project. I was Mr. Bark's assistant during the conduct of that investigation. The investigations included practically all the irrigation projects in Southern Idaho. We made experiments and investigations on the tract of the Idaho Irrigation Company and on the experiment station farm at Gooding, Idaho. The farm that was located or picked out for this purpose was situated south of the town of Gooding a short distance, approximately a mile, I believe, and the topography of the land, that particular section, was very uniform, and the general slope was mostly in one direction; the land was very easily laid out for subdivision into small tracts. These subdivisions were made for experimental purposes, to determine the duty of water upon different classes of crops, which are crops common to irrigated Idaho, and these tracts varied in size from

a tenth of an acre to approximately an acre, as I remember it, all of the tracts being very small and of uniform size.

As I remember it, the soil was approximately 8 to 10 feet deep on this experimental farm. The tracts experimented on were from one-tenth of an acre to an acre in size. The usual method of applying water to those experimental plots was to take the water available for the total acreage in the experiment farm and apply it quickly to the small plots upon which experiments were conducted, thus getting a sufficient head to irrigate quickly the plots irrigated, eliminating the excessive surface waste that is usually encountered in practical farm operations, and also eliminating a part of the deep percolation losses that are usually encountered in practical farm operations. The surface topography of that farm was very level, much more so than the surrounding country. The amounts of water that were applied to this land were measured directly on the land. I think we tried all crops that are grown in irrigated Idaho. The waste or run-off water was measured off from the tracts. The figures represented in that report are the net amount of water which was applied to and retained upon the land. I am satisfied there was an appreciable loss by deep percolation. The greatest loss that was ascertained in our investigations on all projects was the loss sustained by farm laterals, that is, taking the head of the supply as the farm-

er's headgate from the main canal of the system. There was a summation made in that report as to the various losses which the projects were subject to. The summation at pages 169 of the proposed exhibit was the result of additional experiments conducted. Actual experiments were conducted to ascertain the amount of loss, the average amount of loss, in the farm laterals on the irrigation projects of Southern Idaho. These losses shown on page 169 show that the lateral system of a project has a loss varying from 5 to 15 per cent, with an average of 7.5 per cent. But as I recall our work—I might say here that I had actual charge of the field work, and did most of the field work on this seepage investigation of canal systems—that our seepage loss in per cent of loss compared with the total water available was higher on small farm laterals than it was on a distribution system of a main canal. As I recall, the greatest loss in per cent per mile in small farm laterals was on the South Side Twin Falls project. We did not conduct any investigations, as I remember it, of small laterals, on the Idaho Irrigation project. We attempted to make an investigation of that project for seepage losses, but the moss conditions throughout the system were so bad that we gave it up, due to the fact that I figured there would be too big an error in the computations and it would have no value.

I have examined carefully both projects, the South Side Twin Falls and the Idaho Irrigation, and have

spent a good deal of time on both of them, and my opinion is that the lava formation is much nearer the surface on the Idaho irrigation project than it is on the South Side Twin Falls project, and, due to the fact that the lava formation on the Idaho Irrigation Company project is very badly broken, and seems at some time to have been badly upset in every direction, causing a chaotic condition in the lava flows, the losses on the Idaho irrigation project could not help but be higher than they are on the South Side project.

As to the loss on the South Side Twin Falls project, I notice here in the first few experiments conducted, that the losses vary on the first eight farm laterals enumerated, the losses varied from 15 per cent to 58 per cent per mile. Then going on down through the balance of the small farm laterals, the losses go down as low as two and one-half per cent per mile. This is the outside limit both ways, two and one-half per cent to 58 per cent per mile loss. The average loss would be approximately 30 per cent, based on those two extremes, 30 per cent per mile on the farm laterals. On the average as a whole I think the loss on the Idaho Irrigation Company project in the farm laterals would be greater than 30 per cent per mile. Just what the extent would be I couldn't say, because it would take a lot of work to determine that. We made investigations to ascertain what the deep percolation losses were on the various projects. The deep per-



colation losses on the different projects covered in this work (Plaintiffs' Exhibit 20) varied from 10 per cent to 80 per cent, and, as it states here, will probably average 20 per cent. The minimum that we found on any of the irrigation projects was approximately 10 per cent. I believe the deep percolation losses on the Idaho irrigation project were more affected by the lack of depth of soil over the sub-strata. The deep percolation losses on this project are found to be higher than on a project having a greater depth of soil, and also on a project having a tighter sub-soil, like we have here in the Boise valley and other places. I would say that the deep percolation losses on that project materially exceed the minimum as found by the experiments. I would rather not give a definite figure on the deep percolation losses on the Idaho Company's project. I might be a mile off on it, but I am positive they would exceed the minimum shown in the report. Experiments to ascertain the unavoidable surface waste from the irrigation of land was a part of the investigation of the duty of water made on the tracts irrigated over the state. It was a part of another experiment. That was a deduction made from other experiments. There was an actual experiment made to ascertain the amount of surface waste. I will read paragraph 4 of page 169 of Mr. Bark's report, article 4: "That the surface waste from a farm will range from 5 to 50 per cent of the amount delivered, and should average ap-

proximately 12.5 per cent." As I recall it, our actual figures on that showed an average loss from surface waste of 21 per cent. Mr. Bark has called attention to the fact that the average should approximate 12½ per cent. The average figure as I recall it was 21 per cent. There is an important factor that would have to be taken into consideration in determining the average waste of water on the Idaho irrigation project. And that would be the size of the irrigation head used by the average farmer on the project. Due to the uneven topography, the rolling character of the topography of that country, if large heads of water were used, the surface waste would be greater than it would be if a smaller sized head were used; it couldn't help but be, due to the steepness of a large part of that country. Basing my answer on an average of all those conditions, I think a fair average for the Idaho Irrigation Company's project would be between 30 to 35 per cent. That is waste from the farms, it would depend on these other factors entirely.

The report of Don Bark referred to by the witness was offered in evidence as Plaintiffs' Exhibit No. 20 (the same need not be set out in the record, but the Clerk will transmit it to the Clerk of the Circuit Court of Appeals for the use of the members of that Court).

The irrigation on the Gooding Experiment Station was done in the day time, there was no night

irrigation. Both the flood and corrugation methods were used. From my knowledge of the Idaho Irrigation Company project and the character and texture of the soil, its depth, the structure of the substrata, the loss in the farmer's laterals, the surface topography, and assuming that 60 per cent of the tract was in alfalfa and pasture and 40 per cent in various grain crops and potatoes and other root crops, I would place the average duty of water on that tract at  $4\frac{1}{2}$  acre feet per acre. I might add to that, Mr. Bissell, that there are some years when they could get along with probably four acre feet. There are some years, due to the difference in the length of the irrigation season, that it might require five acre feet. I place that average as being an average for a number of years.

I am very much in favor of rotation methods where it can be used. I always have been a great believer in big heads of water for short periods. I think it is a far more economical use of water, and also has a tendency to increase crop yields. But there are places in Idaho where rotation cannot be practiced, that is, on any large scale. On that project I do not believe that it is possible to practice rotation on any extensive scale, due to the rough topography of the country, the land. A large head applied upon that land that has very much of a slope to it would wash all the soil away from the surface and expose the underground strata.

## CROSS-EXAMINATION

By MR. WALTERS.

The farm lateral losses on the South Side Twin Falls project showed a variation from 2 to 58 per cent. That is explained on page 143 of Mr. Bark's report. That is a table, and the explanation of that is on the preceding page, I believe, on page 138, gives a description of the project on which these small farm laterals were experimented upon, and experiments number 1 to 21 inclusive, typical small farm laterals located on the South Side Twin Falls project, Salmon River project, and the Ridenbaugh Canal, in Boise Valley,—that paragraph doesn't specifically state that those first five or six experiments were on the South Side Twin Falls project, but as I remember it that was the place that we did find the largest farm lateral losses. Mr. Bark's detail report would give that exactly, if I am in error—of which I have not a copy.

I said that Mr. Bark stated that the average waste from the surface of the farms would be  $12\frac{1}{2}$  per cent. On an ordinary project that would not be lost. There probably are some instances on the Idaho Irrigation Company's project where this waste water is picked up and used over again, where the company may have a lateral running through the lower end of an individual's farm; but that is not generally true of that project, I shouldn't think. It goes into the coulees and is picked up by the company there and is diverted into the irriga-

tion system, but just as soon as it gets into a lot of those coulees it is gone, due to the formation of that lava flow in that country. We have never made any experiments to determine the losses in a coulee. I believe we did on one in the South Side Twin Falls, but I have forgotten what it was. But the general formation there would lead me to believe that the seepage losses in one of the coulees would be very heavy. Coulees are universally used in Southern Idaho for that purpose where the losses are not excessive. I have made no experiments on the Idaho Irrigation Company tract to determine whether the losses are excessive or not. I was just giving my opinion, that was all. Referring to the table on page 43 of Plaintiffs' Exhibit No. 20 under the fifth experiment where the loss was 58.8 per cent per mile, there was eighteen miner's inches or  $\frac{36}{100}$  of a second foot in the ditch, and if you transport it, that amount of water in that particular ditch for a mile, it would lose 58 per cent of it. The larger head you have at the source of supply the less the percentage loss would be, due to the fact that—take for instance a ditch carrying eighteen miner's inches, and you had a 58 per cent loss, and you double that head to thirty-six inches, the increased wetted area in the bottom of the ditch would not justify the double increase loss in transportation. The loss would probably only be 5 or 10 per cent more with a double head in there, of the total quantity, than it would be with half a head.

In other words, the increased wetted area is very small compared with the total wetted area of a small quantity. It is true that the larger the amount of water in the ditch the less would be the proportion of loss in percentage. The eleventh experiment on page 143 shows a loss of  $8 \frac{4}{10}$  per cent per mile, but in that case the ditch carried  $83/100$  of a second foot. Those experiments really don't mean anything unless we know what class of soil the water is running through, and that is in Mr. Bark's detailed report. In 1914 I made one trip over the Idaho Irrigation Company project for the State Engineer's office. The project was in rather a crude condition. I couldn't say exactly it was the early stage of development. When I first went there it was the first or second year that they were delivering water, but there are some farms there that have been developed very very rapidly, and there was others, of course, that hadn't been touched. I have not been over the project with any degree of care the last four or five years or since 1914. I have been through it but not to make an examination of it. I have no personal knowledge of what improvements have been made since my early visits to it. My answers are based on my training and observations made from five to seven years ago. The South Gooding tract is the best adopted to rotation of any part of the project. I don't think the Richfield tract would be very ideal

for rotation. It is not my opinion that the North Gooding tract is comparatively level.

Rotation is being practiced in the Boise Valley, which is ideally situated for that system. I think it has a vital effect on the crop production. It increases crop production.

When I gave my opinion as to the duty of water I had in mind just a good yield such as farmers generally regard as a good yield of crops. Where you use the corrugation system you can apply a small amount more economically I believe than a large amount, but where you flood you require a large head. I might add this too, not to give a lecture on the duty of water—during the past ten years I have been studying this duty of water question, trying to arrive at some conclusion that would make it possible for the farmers to produce maximum crops with a minimum quantity of water, and the only thing I have been able to do in that time to actually bear this out is to encourage farmers to properly prepare their lands. I think that has more to do with a high duty of water than any other one thing. A better preparation of the farm lands on the Idaho Irrigation Company project would reduce my estimate of four and one-half acre feet. If they have used the best possible method of bringing their land under ideal conditions they can't help but reduce the consumption of water. It depends entirely on the depth of the soil as to whether they can take off the knolls. I have seen lots of that

land over there where, if you take off very much you haven't got much but rock. I haven't made an examination in the last two or three years as to the preparation of the land for irrigation and I don't know whether the farms are in reasonably good condition or not.

F. S. HARRIS, re-called as a witness for plaintiff, testified as follows:

#### DIRECT EXAMINATION

By MR. BISSELL.

I have made a computation or summary from Mr. Bark's report (Plaintiffs' Exhibit 20) deducting the losses, and in order to ascertain the amount of water necessary to deliver two acre feet per acre actually retained on the land. The figures contained in Mr. Bark's summary, which are based on general conditions for Southern Idaho, give averages for say the loss from the farmer's headgate to the land, averaging various quantities, ten, fifty, twenty, and thirty, and various figures of that kind are given, but the average is placed at  $7\frac{1}{2}$  per cent. The surface wastes are placed at  $12\frac{1}{2}$  per cent. The deep percolation loss at 20 per cent; and the evaporation at 10 per cent. Giving a total loss for the average of Idaho conditions of 50 per cent. That, I consider from my observation of this project, in comparison with the average, that the loss would be slightly more than the average, which would make it slightly more than 50 per cent. My statement of the duty of water of four and one-half feet



delivered at the farmer's headgate would seem to have subtracted from it somewhat over 50 per cent, leaving, according to my estimate, on which the statement was based, two acre feet net to be used for crop production on the land itself; and assuming that there would be a total loss of two and one-half acre feet of the four and one-half acre feet delivered at the farmer's headgate. This two acre feet would be the amount actually used by the plants, transpired by them.

#### CROSS-EXAMINATION

By MR. WALTERS.

In making this estimate I am allowing for two acre feet on each acre of land to be used by the plants. I think an average of the crops would transpire or use that. I take two acre feet to be transpired by the plants and two and one-half acre feet as loss between the farmer's headgate. I consider this project to have more waste than the average project of Southern Idaho, more deep percolation and more waste in ditches. If all the losses as mentioned here, actually determined at two acre feet, then I would say that four would be all right, that is, all I would call for would be two acre feet to be actually used by the crops themselves, in the soil itself.

The loss from the headgate to the land would not be the same on all projects. We have an average of  $71\frac{1}{2}$  per cent. Take the Oakley project, for example, or a project of that kind, with a uniform

slope, the farmer can get the water to the actual piece of land with a very short run, because the ditch is right at the corner. On a project of this kind ditches have to be run at all angles, and they have to be long ditches, and as a result the losses would be very much more than they would on the smoother projects, so that I would say here they are considerably more than the figure given. The farmer's ditches to get the water to the actual piece of land where it is spread on the land are unusually long on any project with a rough surface. I observed in my inspection last fall that on many farms they diverted the water directly from the main lateral itself, but the number of cases where they could do that is less than it would be if the land were a uniform slope. It is a factor, however, to be considered. I place the surface waste and deep percolation higher on that project than the ordinary project, also the ditch waste. I think these three are enough more to make up the extra half foot.

#### RE-DIRECT EXAMINATION

By MR. BISSELL.

I would say that the Idaho irrigation project is in medium condition for proper irrigation. It isn't in nearly as good condition for irrigation, that is, as far as complete preparaton, as the projects for example, in California, in the citrus belt, where the land has all been completely leveled, so that there is not a drop of water lost. It certainly is

not in that condition. On the other hand, the farmers who have been there on the land, it seems to me, have made an effort to get their land in as good condition as they thought the expense justified.

Whereupon it was stipulated that the exhibits attached to the complaint are true and correct copies of the original documents, and that said exhibits should be considered as admitted in evidence.

Whereupon plaintiffs introduced in evidence as Plaintiffs' Exhibit No. 21 the following tables from the weather bureau of the United States Department of Agriculture showing precipitation at Gooding, Idaho, for certain months of the year:

| Year. | April.    | May. | June. | July. | Aug. | Sept. | Oct. |
|-------|-----------|------|-------|-------|------|-------|------|
| 1910  | .... 0.77 | 0.32 | 0.08  | 0.24  | 0    | 0.44  | 0.45 |
| 1911  | .... 1.15 | 1.77 | 1.06  | 0     | 0    | T     | 1.10 |
| 1912  | .... 0.96 | 1.33 | 0.67  | 0.33  | T    | 0.18  | 2.16 |
| 1913  | .... 0.47 | 0.15 | 0.91  | 0.73  | 0.08 | 0.05  | 0.94 |
| 1914  | .... 1.02 | 0.44 | 0.43  | 0.22  | 0    | 1.09  | 1.74 |
| 1915  | .... 0.75 | 1.91 | 0.33  | 1.01  | 0.10 | 1.04  | 0    |
| 1916  | .... 0.49 | 0.70 | 0.15  | 0.71  | 1.15 | 0     | 0.70 |
| 1917  | .... ...  | ...  | 0.01  | 1.19  | 0.02 | 0.29  | 0    |
| 1918  | .... 0.42 | 0.57 | 0.43  | 0.38  | 0.29 | 1.67  | 1.15 |
| 1919  | .... 0.37 | T    | 0     | 0.40  | 0    | 1.41  | 0.78 |

Plaintiffs also introduced as their exhibit No. 22 the following table from the weather bureau of the United States Department of Agriculture showing precipitation at Shoshone, Idaho, for certain months of the year:

| Year. | April.    | May. | June. | July. | Aug. | Sept. | Oct. |
|-------|-----------|------|-------|-------|------|-------|------|
| 1910  | .... 0.33 | 0.43 | 0.01  | 0.18  | 0    | 0.54  | 0.59 |
| 1911  | .... 1.25 | 1.98 | 0.84  | T     | 0    | 0.01  | 1.01 |
| 1912  | .... 0.94 | 0.51 | 0.45  | 0.01  | 0.11 | 0.05  | 2.02 |
| 1913  | .... 0.50 | 0.34 | 1.32  | 0.80  | 0.05 | 0.47  | 0.54 |
| 1914  | .... 0.81 | 0.17 | 0.80  | 0.03  | T    | 1.23  | 1.33 |
| 1915  | .... 0.51 | 2.95 | 0.08  | 0.45  | 0.30 | 1.63  | 0    |
| 1916  | .... T    | 0.69 | 0.18  | 0.52  | T    | T     | 1.21 |
| 1917  | .... 1.10 | 0.64 | 0.02  | 0.08  | T    | 0.46  | 0    |
| 1918  | .... 0.79 | 0.81 | 0.65  | 0.26  | 0.13 | 1.10  | 1.31 |
| 1919  | .... 0.96 | 0.15 | T     | T     | 0.02 | 1.52  | 1.22 |

Plaintiffs further introduced in evidence as Exhibit No. 29 the following table from the weather bureau of the United States Department of Agriculture showing precipitation at Richfield, Idaho, for certain months of the year:

| Year. | April.    | May. | June. | July. | Aug. | Sept. | Oct. |
|-------|-----------|------|-------|-------|------|-------|------|
| 1910  | .... 0.36 | 0.36 | 0.02  | 0.10  | T    | 0.73  | 0.44 |
| 1911  | .... 1.07 | 2.12 | 1.30  | 0     | 0    | 0.17  | 0.68 |
| 1912  | .... 0.95 | 0.86 | 1.52  | 0.54  | 0.41 | 0.28  | 2.61 |
| 1913  | .... 0.67 | 0.32 | 1.94  | 0.89  | 0.38 | 1.01  | 0.65 |
| 1914  | .... 0.31 | 0.82 | 0.85  | 0.29  | 0    | 1.03  | 1.45 |
| 1915  | .... 0.73 | 3.51 | 0.05  | 0.31  | 0.19 | 1.83  | 0.04 |
| 1916  | .... 0.52 | 0.85 | 0.34  | 0.10  | 0    | 0.02  | 1.11 |
| 1917  | .... 1.31 | 1.39 | 0.09  | T     | 0.10 | 0.47  | 0    |
| 1918  | .... 0.97 | 1.33 | 1.40  | 0.27  | T    | 0.84  | 1.02 |
| 1919  | .... 0.44 | T    | 0     | 0.61  | 0.08 | 1.51  | 0.66 |

Whereupon plaintiffs offered in evidence as their Exhibit No. 23 a certified copy of an application to the Department of Reclamation by the Idaho

Irrigation Company, Limited, of which the following is a true copy:

BEFORE THE DEPARTMENT OF RECLAMATION OF THE STATE OF IDAHO.

In the matter of the Carey Act project constructed by the Idaho Irrigation Company, Limited.

Application for transfer of the system for operation to the Big Wood River Reservoir and Canal Company, Limited.

To the Department of Reclamation of the State of Idaho:

Comes now the Idaho Irrigation Company, Limited, and respectfully requests:

(1) That your department, as successor to the State Engineer of the State of Idaho, join in the certificate of the Chief Engineer of the said company hereto attached certifying that the irrigation system constructed by said company is completed for the purposes of operation.

(2) That your department, as successor of the State Board of Land Commissioners of the State of Idaho, thereupon consent that the said system be turned over to the Big Wood River Reservoir and Canal Company, Limited, for operation.

This request is made in accordance with Article No. 9 of the state contracts heretofore entered into between the State of Idaho and the Idaho Irrigation Company, Limited.

As you are aware the said system is and has been for a long time in actual operation.

Respectfully submitted,  
IDAHO IRRIGATION COMPANY, LTD.

By M. R. Kays,  
Vice President and General Manager.

To the foregoing application was attached a certificate entitled as above and reading as follows:

"The undersigned Chief Engineer of the Idaho Irrigation Company, Limited, hereby certifies that the entire irrigation system of the said company is completed for the purposes of operation.

Dated at Richfield, Idaho, this 17th day of September, 1919.

LESTER C. WALKER,  
Chief Engineer of the Idaho Irrigation Co., Ltd."

Whereupon it was stipulated that final action had not been taken by the State Land Board or the Department of Reclamation on the foregoing petition. Whereupon it was stipulated that in view of the fact that the complaint in intervention of the State of Idaho incorporated by reference certain paragraphs of the complaint that said reference included the paragraphs as the same had been amended. And it was further stipulated that all evidence introduced in behalf of plaintiffs should be considered as introduced on behalf of the intervenor, the State of Idaho.

S. T. BAER, called as a witness on behalf of the State of Idaho, Intervenor, testified as follows:

DIRECT EXAMINATION

By MR. DRISCOLL.

I am an assistant to the Commissioner of Reclamation. I was formerly employed in the office of the State Engineer. The report marked Plaintiffs' Exhibit No. "6" covers in detail the question of the reservoir capacity, the question of the canal capacity and losses, the question of the water supply available for the project and the resulting acreage based on the contract duty, with an assumed irrigation season, and also the work that the office deemed was necessary should be done upon the project to bring it to a state of completion conforming with the contract between the company—and by company I mean Idaho Irrigation Company—and the State of Idaho. The question of the available water supply is shown on page 3 of the water supply portion of that report. It is a table, showing in acre feet the average run-off of Big and Little Wood Rivers for the years 1909 to 1916 inclusive, the amounts due for each month, as an average, to prior rights. The resulting amount that is available to the Idaho Irrigation Company for storage on both Big and Little Wood Rivers, with an accumulative total.

The table referred to is marked Intervener's Exhibit No. "1" and admitted in evidence and the following is a true copy thereof:

## (INTERVENER'S EXHIBIT NUMBER "1")

TABLE 1

| 1909  | Ave. Run off Big Wood River | Due to prior rights Big Wood | Available to I. I. Co. Big Wood | Ave. Run off Little Wood River | Due to Prior Rights Little Wood | Available to I. I. Co. Little Wood | Total Available to I. I. Co. | Sum Total Available for I. I. Co. |
|-------|-----------------------------|------------------------------|---------------------------------|--------------------------------|---------------------------------|------------------------------------|------------------------------|-----------------------------------|
| Oct.  | 10,900                      | 6,100                        | 4,800                           | 10,100                         | 10,100                          | .....                              | 4,800                        | 4,800                             |
| Nov.  | 12,000                      | 5,900                        | 6,100                           | 10,000                         | 10,000                          | .....                              | 6,100                        | 10,900                            |
| Dec.  | 10,000                      | 6,000                        | 4,000                           | 8,800                          | 8,800                           | .....                              | 4,000                        | 14,900                            |
| Jan.  | 7,900                       | 7,900                        | .....                           | 9,200                          | 9,200                           | .....                              | .....                        | 14,900                            |
| Feb.  | 8,000                       | 3,600                        | 4,400                           | 7,800                          | 7,800                           | .....                              | 4,400                        | 19,300                            |
| Mch.  | 34,800                      | 5,900                        | 28,900                          | 9,900                          | 9,900                           | .....                              | 28,900                       | 48,200                            |
| Apr.  | 123,400                     | 13,700                       | 109,700                         | 16,600                         | 4,700                           | 11,900                             | 121,600                      | 169,800                           |
| May   | 100,000                     | 14,200                       | 85,800                          | 16,600                         | 4,800                           | 11,800                             | 97,600                       | 267,400                           |
| June  | 101,600                     | 13,700                       | 87,900                          | 11,400                         | 4,800                           | 6,700                              | 94,600                       | 352,000                           |
| July  | 38,400                      | 12,300                       | 26,100                          | 4,800                          | 4,100                           | 700                                | 26,800                       | 388,000                           |
| Aug.  | 8,500                       | 5,100                        | 3,400                           | 6,200                          | 4,500                           | 1,700                              | 5,100                        | 393,900                           |
| Sept. | 8,500                       | 4,600                        | 3,900                           | 8,400                          | 4,700                           | 3,700                              | 7,600                        | 401,500                           |
| Total | 464,000                     | 99,000                       | 365,000                         | 119,800                        | 83,300                          | 36,500                             | 401,500                      | .....                             |

All figures in acre feet.

That tabulation was made from the best records available, from the United States Geological Survey Department, and from the records kept by the Idaho Irrigation Company, which records were kept in cooperation with the U. S. G. S.

M. R. Kays, called as a witness on behalf of the Intervener, State of Idaho, testified as follows:



DIRECT EXAMINATION.

By MR. DRISCOLL.

I live at Richfield. I am vice president and general manager of the Idaho Irrigation Company.

I have never checked Intervener's Exhibit Number "1" which purports to show the available water supply, and I cannot state whether it is approximately correct. The company has taken measurements since the time of the State Engineer's report, both before and since, and those figures are available.

MR. BISSELL: They are in evidence.

WITNESS CONTINUES: If the computation and the treatment in the table are correct, we accept them as correct.

Whereupon, plaintiff's Exhibit Number "6" was offered and admitted in evidence as part of the proof of the Intervener.

The tables shown on plaintiff's Exhibit Number "1" represent the total available water supply of the Idaho Irrigation Company, if they show the entire run-off for the periods for which we have records on Big and Little Wood Rivers.

RE-DIRECT EXAMINATION.

By MR. DRISCOLL.

I have made some investigation as to the available water supply. I am not able to say offhand, without having my own figures before me whether plaintiff's Exhibit Number "6" and Intervener's Exhibit Number "1" show a greater or less water

supply than our figures show, there is a difference in some respects both ways.

Whereupon Mr. Driscoll offered in evidence paper marked Intervener's Exhibit Number "2", the same being a certified copy of an order made by W. G. Swendsen, Commissioner of Reclamation, bearing date of the third day of May, 1919, wherein it was ordered and directed that the Idaho Irrigation Company, Limited, and M. R. Kays, trustee "are hereby forbidden and prohibited from making any further or additional sale for water rights or sales of stock evidencing or representing water rights, or entering into any further contract or contracts for the sale of water rights for lands to be watered from the system or irrigation works of the said Idaho Irrigation Compny, Limited. This order shall be effective forthwith and continue in force until my further order." Said order further provided for service thereof upon the counsel for said company and upon the company and M. R. Kays, Trustee, and that a hearing would be had on May 20th in the office of the Commissioner of Reclamation at which time the Company might if it desired, show cause why said order should not be made permanent.

To the introduction of said Exhibit and order, counsel for defendants duly objected on the ground that said order could have no evidentiary or probative effect in this case. The same was admitted subject to the objection. (This Exhibit need not be

set out in the record, but the Clerk will transmit the original to the Clerk of the Circuit Court of Appeals for the use of the members of that Court.)

Whereupon the Intervener offered in evidence paper marked Intervener's Exhibit Number "3," the same being a certified copy of an order made by W. G. Swendsen, Commissioner of Reclamation and bearing date June 2, 1919, wherein said Commissioner of Reclamation recited the pendency of this action and that the object and purport thereof was to forbid the sale of more water rights and that the state of Idaho had a direct interest and obligation in prohibiting such sales by irrigation companies when the supply of water is not ample and sufficient, and it was ordered that the State of Idaho, by and through the Commissioner of Reclamation, join in said action by intervention to the end that the prayer of said complaint be granted, and that the Attorney General of the State be advised of such order and requested to take such action as may be necessary to carry the same into effect.

The Exhibit was admitted in evidence pursuant to the ruling made as to Intervener's Exhibit Number "2". (This Exhibit need not be set out in the record, but the Clerk will transmit the original to the Clerk of the Circuit Court of Appeals for the use of the members of that Court.)

**DIRECT EXAMINATION OF M. R. KAYS**

**By MR. BISSELL.**

I have consulted the books and records of the Idaho Irrigation Company to ascertain the number of shares of stock of the Big Wood River Reservoir and Canal Company outstanding on the 9th day of December, 1917; I cannot give you that figure as of that date. I can figure it back from February 21st, I can give you that figure, it is 88,835.71. That represents the total number of shares of stock sold for Carey Act land, for school land, desert land, homestead land, and all other lands on the date mentioned. At that time, there were certain lands standing in the name of M. R. Kays, Trustee, Lyman Rhoades, Trustee, and Equitable Trust Company of New York, Trustee. I believe the Idaho Irrigation Company to be the owner, the beneficial owner, of lands standing in the names of the various parties mentioned and was the beneficial owner at the time of the filing of the complaint and lis pendens in the district court.

I have made a list showing the dates upon which the Magic Reservoir was drained during the years 1909 to 1918 inclusive, also the dates upon which delivery of water for irrigation purposes was discontinued, and dates upon which water for irrigation purposes was delivered through each canal. Paper marked plaintiff's Exhibit Number "24" is the list or report prepared by me. It is true and correct and discloses the facts therein stated. The same was offered in evidence as plaintiff's Exhibit Numbr "24" and is as follows:

# DATES UPON WHICH MAGIC RESEROIR WAS DRAINED:

1911—Nov. 5

1915—Aug. 3

1918—Aug. 3

1919—July 29

# DATES UPON WHICH DELIVERY OF WA- TER FOR IRRIGATION PURPOSES WAS DIS- CONTINUED (Reservoir not drained):

1912—Nov. 1

1913—Nov. 1

1914—Oct. 1

1916—Oct. 1

1917—Oct. 1

# DATES UPON WHICH WATER FOR IRRI- GATION PURPOSES WAS DELIVERED THROUGH EACH CANAL:

|            | Richfield<br>Canal | Dietrich<br>Canal | South<br>ing Canal | Good-<br>ing Canal | North<br>ing Canal | Good-<br>ing Canal |
|------------|--------------------|-------------------|--------------------|--------------------|--------------------|--------------------|
| 1911 ..... | April 5.....       | Mar. 30.....      | May 5.....         | Mar. 30            |                    |                    |
| 1912 ..... | April 1.....       | Mar. 30.....      | May 8.....         | May 8              |                    |                    |
| 1913 ..... | April 1.....       | April 11.....     | April 13.....      | April 13           |                    |                    |
| 1914 ..... | May 2.....         | April 28.....     | April 4.....       | April 1            |                    |                    |
| 1915 ..... | April 9.....       | April 1.....      | April 1.....       | April 1            |                    |                    |
| 1916 ..... | April 11.....      | April 17.....     | April 13.....      | April 1            |                    |                    |
| 1917 ..... | May 12.....        | May 14.....       | May 9.....         | May 11             |                    |                    |
| 1918 ..... | April 25.....      | May 1.....        | April 11.....      | April 22           |                    |                    |
| 1919 ..... | April 30.....      | April 28.....     | April 24.....      | April 24           |                    |                    |

Above dates furnished by and taken from the records of the Idaho Irrigation Company, Ltd., Feb. 26, 1920.

We have kept a record each year commencing with the year 1911 of the number of acres under cultivation on the project to 1919, inclusive.

Whereupon plaintiff offered in evidence as plaintiff's Exhibit Number "25," a certificate compiled by the Lincoln County Abstract Company of Shoshone, Idaho, showing the legal description of each tract of land in the name of M. R. Kays, Equitable Trust Company, Lyman Rhoades, as Trustee, on the 9th day of December, 1917, which it is stipulated and agreed may be accepted as evidence of the fact that the land did so stand in the name of said parties on said day.

MR. BISSELL: The purpose of it is to show the ownership of these particular lands which we alleged in the complaint were in the names of these parties on that day. We described and set out in our complaint certain descriptions of land which we alleged were held by these parties. The instrument referred to was admitted in evidence. (The Exhibit need not be set out in the record, but the Clerk will transmit to the Clerk of the Circuit Court of Appeals the original Exhibit for the use of the members of that Court.)

Plaintiff thereupon offered in evidence as plaintiff's Exhibit Number "26" a certificate similar to Exhibit Number "25" except that the same was compiled by the Surety Title and Trust Company and showing facts similar to that of Number "25," relative to the lands in Gooding County. (The Ex-

hibit need not be set out in the record, but the Clerk will transmit to the Clerk of the Circuit Court of Appeals the original Exhibit for the use of the members of that Court.)

Plaintiff thereupon offered in evidence as plaintiff's Exhibit Number "27", a certificate by the State Commissioner of Reclamation showing a description of the lands for which entries had been made under the Carey Act on lands under the Idaho Irrigation Company project, which entries were subject to cancellation for failure to submit proof of cultivation and reclamation. (The Exhibit need not be set out in the record, but the Clerk will transmit to the Clerk of the Circuit Court of Appeals the original Exhibit for the use of the members of that Court.)

Whereupon attorneys for the plaintiff were given ten days within which to file a supplemental bill setting forth the making of the order dated May 3, 1919, by the Commissioner of Reclamation for the State of Idaho, being Intervener's Exhibit Number "2."

Plaintiff thereupon offered in evidence as Exhibit Number "28." the deposition of H. L. Stewart, taken pursuant to stipulation, in Chicago, Illinois, on the 6th day of January, 1920. The said witness, after being first duly sworn, testified as follows:

**DIRECT EXAMINATION.**

**By MR. BISSELL.**

I reside at Kenilworth, Illinois. I am by occupation an investment banker. The paper marked for identification as plaintiff's Exhibit "A" and now shown to me, is the Plan and Agreement for Re-organization of the Idaho Reclamation Company, dated May 23, 1913. I am the H. L. Stewart referred to in this instrument and whose name appears as chairman of the Security Holders' Protective Committee. That pamphlet was issued by me in the capacity of chairman of the Security Holders' Protective Committee. A copy of it was mailed to each and every bondholder of the Company whose name the Committee could get possession of. The pamphlet referred to was admitted in evidence over the objection of counsel for the defendant that it was incompetent, irrelevant and immaterial. A typewritten copy thereof is attached to the deposition of said H. L. Stewart. (The same need not be incorporated in the record on appeal, but the clerk will transmit said deposition with said pamphlet annexed thereto, to the Clerk of the Circuit Court of Appeals for the use of the members of that Court.)

Paper marked plaintiff's Exhibit "B" is the Stock Trust Agreement of the Idaho Irrigation Company, Limited, dated February 7, 1914. I have a copy of the Voting Trust Agreement, but officially, as chairman of the Security Holder's Protective Committee, I never had anything to do with the Voting Trust Agreement. It is a copy of the Voting



Trust Agreement referred to in the Plan and Agreement for Reorganization, dated May 23d, 1913, which has heretofore been offered in evidence (Exhibit "A.")

The Voting Trust Agreement referred to by the witness was admitted in evidence as plaintiff's Exhibit "B" over the objection of counsel for defendants that same was irrelevant and immaterial. (Plaintiff's Exhibit "B" need not be included in the record on appeal, but the Clerk will transmit the same with the deposition of H. L. Stewart to the Clerk of the Circuit Court of Appeals for the use of the members of that Court.)

Paper marked plaintiff's Exhibit "C" is a copy of the Security Holders' Protective Committee Agreement dated April 15th, 1912. This was the first thing that was done, and the others followed. The second was Exhibit "A" and the third was Exhibit "B" in the order of sequence. I am the H. L. Stewart whose name appears as chairman of the Committee in plaintiff's Exhibit "C."

Whereupon Exhibit "C" was admitted in evidence over the objection of counsel for defendants that the same was irrelevant and immaterial. (Exhibit "C" need not be included in the record on appeal, but the same, attached to the deposition of H. L. Stewart will be transmitted by the Clerk to the Clerk of the Circuit Court of Appeals for the use of the members of that Court.

The plan as outlined in Exhibit "A" was carried out and the Idaho Irrigation Company has since operated under the plan outlined in said Exhibit. The election of directors has been had under and by virtue of the provisions contained in Exhibits "A" and "B." The bond holders of the Idaho Irrigation Company did not take over the control and management of that Company.

My recollection is that in the original sale of the bonds to a syndicate, a stock bonus was given with the bonds as an inducement to purchase. Some of the syndicate subscribers retained their stock and sold the bonds; others sold their bonds, passing along to the ultimate purchaser substantially the same amount of stock they received.

The Voting Trust created under the plan detailed in the "Plan and Agreement for Reorganization," dated May 23rd, 1913, was actually created and the directors have been elected annually by the Voting Trust under that Stock Trust Agreement, and the affairs of the Idaho Irrigation Company have, since February 7, 1914, been conducted under the Plan and Agreement as evidenced by Exhibits "A," "B" and "C" heretofore identified.

Whereupon plaintiffs rested.

Whereupon counsel for defendants offered in evidence as defendant's Exhibit Number "2" a Patent from the United States to the State of Idaho covering the lands described in the decree herein, as amended, and other lands aggregating 117,677.24

acres. The material parts of the Patent omitting the description of the lands, are as follows:

“Hailey 011022.

THE UNITED STATES OF AMERICA.

To all to whom these presents shall come, Greetings:

WHEREAS, by Section four of the Act of Congress approved August 18, 1894, as found on page 422 of Volume 28 of the Statutes at Large, and by the Act of Congress approved June 11, 1896, as found on page 434 of Volume 29 of the Statutes at Large, and by the Act of Congress approved March 3, 1901, as found on page 1133 of Volume 31 of the Statutes at Large, and by the Joint Resolution approved May 25, 1908, as found on page 577 of Volume 35 of the Statutes at Large, and by the Act of Congress approved May 27, 1908, as found on page 347 of Volume 35 of the Statutes at Large, provision is made for a grant of desert lands not exceeding three million acres to the State of Idaho; and

WHEREAS, the State of Idaho, a beneficiary under the grant aforesaid, has duly complied with all the conditions and requirements of said Acts of Congress and with the regulations made and prescribed thereunder as to certain tracts, the same being a portion of the three million acres of land granted as aforesaid; and

WHEREAS, by an examination in the field and of the records of the General Land Office, made

prior to the segregation thereof, the said tracts were found to be desert in character; and

WHEREAS, by examination in the field, said tracts were found to have been reclaimed within the meaning of the Carey Act, the same being more particularly described as follows, to wit: (Here is set out description of lands.)

“NOW KNOW YE, That the UNITED STATES OF AMERICA, in consideration of the premises, HAS GIVEN AND GRANTED, and by these presents DOES GIVE AND GRANT, unto the said State of Idaho, and to its assigns, the tracts of land as aforesaid and described in the foregoing, for the purpose specified in said Acts and subject to all the conditions, restrictions and limitations therein prescribed; TO HAVE AND TO HOLD the said tracts, with the appurtenances thereof, unto the said State of Idaho, for the purposes as aforesaid, upon the conditions, restrictions and limitations as hereinbefore specified, and with power to convey the same in fee simple in accordance with the provisions of the said Acts; subject to any vested and accrued water rights for mining, agricultural, manufacturing, or other purposes, and rights to ditches and reservoirs used in connection with such water rights, as may be recognized and acknowledged by the local customs, laws and decisions of courts. And there is reserved from the lands hereby granted, a right of way thereon for ditches or canals constructed by the authority of the United States.

IN TESTIMONY WHEREOF, I, Woodrow Wilson, President of the United States of America, have caused these letters to be made Patent, and the seal of the General Land Office to be hereunto affixed.

GIVEN under my hand, at the City of Washington, the nineteenth day of February in the year of our Lord, one thousand nine hundred and fifteen and of the Independence of the United States, the one hundred and thirty-ninth.

By the President:

(Signed)

WOODROW WILSON.

By (Signed)

M. P. LeROY, Secretary.

(SEAL)

RECORDED: Patent Number 459050

(Signed)

L. Q. C. LAMAR,

Recorder of the General Land Office."

Whereupon counsel for defendants offered in evidence as defendant's Exhibit Number "3" a certified copy of the papers submitted by the State of Idaho to the Federal Government and on the basis of which defendant's Exhibit Number "2" (the Patent) was subsequently issued. Said Exhibit consists of the following papers:

(A) Statement of Account and Receipts of the Richfield Recorder for publishing Notice of Application for U. S. Patent for lands as per attached list, April 18, 25, May 2, 6, 16, 23, 30, June 6, 13, 20.

(B) Affidavit of publisher of Richfield Recorder showing publication of the list of lands described in the Patent in the Richfield Recorder for a period of nine weeks, or ten consecutive issues, the first publication being on the 18th day of April, 1912. and the last on the 20th day of June, 1912; and that said notice was published in the regular and entire issue of said newspaper proper and not in a supplement. The material part of the notice so published and attached to said affidavit is as follows:

**"APPLICATION FOR PATENT."**

United States Land Office, Hailey, Idaho,  
April 9, 1912.

**TO WHOM IT MAY CONCERN:**

Notice is hereby given that the State of Idaho has filed in this office the following list of lands, to-wit: "(Here follows description of lands included in Patent), "and has applied for Patent for said lands under the Acts of August 18, 1894 (28 Stat. 372-422), June 11, 1896 (29 Stat. 434), and March 3, 1901 (31 Stat., 1133-1188), and May 27, 1908 (35 Stat., 317-347), relating to the granting of not to exceed two million acres of arid land to each of certain states; and that the said list, with its accompanying proofs is open for the inspection of all persons interested, and the public generally.

Within the next sixty days following the date of this notice, protests or contests against the claim of the State to any tract described in the list, on the ground of failure to comply with the law, on the ground of the non-desert character of the land, on the ground of a prior adverse right, or on the ground that the same is

more valuable for mineral than for agricultural purposes, will be received and noted for report to the General Land Office at Washington, D. C.

P. F. HORNE, Register.  
C. T. HARTE, Receiver."

(C) Register's Proof of Posting:  
"Serial 011022  
4-227.

CERTIFICATE AS TO POSTING OF  
NOTICE.

DEPARTMENT OF THE INTERIOR.

United States Land Office

At Hailey, Idaho, August 7th, 1912.

I, P. F. HORNE, Register, do hereby certify that a notice, a printed copy of which is hereto attached, was by me posted in a conspicuous place in my office for a period of thirty days, I having first posted said notice on the ninth day of April, 1912, said notice remaining continuously posted up to and including August 7, 1912.

(Signed)

P. F. HORNE,  
Register.

(D):

OFFICE OF THE STATE ENGINEER

Boise, Idaho, January 11th, 1912.

STATEMENT OF STATE ENGINEER TO AC-  
COMPANY LIST FOR PATENT NO. 13,  
BEING A PORTION OF IDAHO SE-  
GREGATION LISTS NOS. 9, 10,

11, 12, 22 and 29.

1. CONCLUSION: I am of the opinion that an ample supply of water for the reclamation of all of

these lands is actually furnished in a substantial reservoir and canal, and in a sufficient quantity to reclaim the lands in question from their arid character, as contemplated under the act commonly known as the Carey Act; and that the State of Idaho is warranted in making this application to the Honorable Secretary of the Interior, asking that patent issue forthwith for the lands embraced in the accompanying lists.

2. WATER SUPPLY: The water supply for the irrigation of lands in the accompanying lists is obtained from Big and Little Wood Rivers. To supplement the normal flow of these streams during low water periods, a reservoir has been constructed on Big Wood River in Townships 1 and 2, S., Ranges 16, 17 and 18 E., B. M., which reservoir has a capacity of 205,000-acre feet. The impounding dam for this reservoir is located at a point which bears N. 23 degrees 29' W. 1731' from the East Quarter corner of Section 18, Township 2 S., Range 18 East, B. M. The water for the irrigation of the lands supplied by Big Wood River is diverted at two points below the impounding dam, one about four miles below the impounding dam and the other several miles below this diversion, both of which points are definitely specified hereafter. Water is also carried from Big Wood River to Little Wood River through an old channel locally known as Cottonwood Slough; and, also, through



the main canal of the Richfield Tract to supplement the supply of this stream.

The right to divert the water supply for the accompanying lists of lands is vested in the following permits, properly filed and recorded in this office:

Permit No. 1817, to divert the equivalent of a continuous flow of 3000 sec. ft. of the Big Wood River and Malad River, with the point of diversion of the East Side or Richfield Main Canal, bearing S. 89 degrees 20' W. 825' from the East Quarter Corner of Section 30, Township 2 S., Range 18 E., B. M.

The diversion works for the West Side or Main North Gooding Canal is at a point which bears N. 53 degrees 28' E. 3457' from the Southwest Corner of Section 15, Township 4 S., Range 18 E., B. M.

Permit No. 3818, to divert 3000 sec. ft. of the Big Wood and Malad Rivers, which permit is supplementary and in addition to above Permit No. 1817.

Permit No. 2644, to divert 300 sec. ft. of Little Wood River, and all tributaries, including particularly Silver Creek and Cottonwood Slough and all flood waters thereof to the extent applied for, with the point of diversion at a point which bears N. 89 degrees 1' E. 1500.6' from the Southwest Corner of Section 29, Township 5 S., Range 16 E., B. M.

The above permits set out that the place of intended use of this water is upon the lands described in the accompanying lists.

Proof of completion of works has been made in this office under Permits Nos. 1817 and 2644, said proof having been approved July 19, 1911, and certificate issued to the Idaho Irrigation Company

for the full amounts requested to be diverted in the permits. The United States Geological Survey records of the flow for 1909 and 1910 of Big Wood River near Shoshone, which is below all points of diversion above mentioned, show that the maximum flow of Big Wood River varies between 4000 and 4500 sec. ft., usually occurring during the latter part of March or April. The maximum flow for 1911 is indicated as 2950 sec. ft., occurring during the month of June. The maximum run-off at Shoshone during the earlier part of the year would not be pertinent for 1911, because of the fact that the Idaho Irrigation Company were storing water in their reservoir up until May 20th, at which time they had impounded approximately 205,000 ac. ft. The flow of 2950 sec. ft., as a maximum for the month of June, 1911, checks closely with that for the month of June, 1909, wherein it amounted to 2680 sec. ft. The total runoff for the year 1911, as given in the provisional statement of the United States Geological Survey, is 320,680 ac. ft. Besides this, there was impounded, as above mentioned, 205,000 ac. ft., which would make an approximate total runoff for this stream of 525,680 ac. ft. The years 1909 and 1910 show, respectively, a run-off of 435,000 and 312,000 ac. ft. No adequate records as to the flow of Little Wood River are available. I believe, however, that the flow of this stream, together with the additional amount of water diverted into it from the impounding reser-

voir of the above company, will be adequate to reclaim the lands mentioned in the accompanying lists.

3. NATURE, LOCATION AND COMPLETION OF WORKS: The irrigation works of the Idaho Irrigation Company consist of a substantial earth impounding dam in the Big Wood River, said dam being 135 feet in height, and having a slope of 3:1 and 2:1 on the upstream and downstream faces respectively. The construction work at this point, also, consists of a concrete gate tower and concrete lined tunnel to divert the water around the dam, returning it to Big Wood River, in which channel it is conveyed to the diversion works for the Richfield System and for the North Gooding System. The diversion dam and head-gates at the Richfield and North Gooding diversion consist of a substantial concrete dam with wooden head-gates; also canals of sufficient capacity to successfully irrigate and reclaim the lands in the accompanying lists lying thereunder. The diversion works in Little Wood River, at the points of diversion above set forth, is substantially the same kind of structure as above described for the Richfield and North Gooding diversion, the canals therefrom, also, having sufficient carrying capacity to successfully irrigate and reclaim the lands in the accompanying lists lying thereunder.

4. LANDS: The lands in the accompanying lists are situated in Lincoln County, Idaho, and

are desert in character, as contemplated under the provisions of the Carey Act. The laterals have been constructed so as to deliver water to within one-half mile of each legal subdivision of 160 acres of the lands described in the accompanying lists, and the company has thereby complied with the provision of contract with the State of Idaho so far as the delivery of water within one-half mile of each legal subdivision of 160 acres is concerned.

In the accomapnying lists for patent, three lists of land are shown. One of the lists covers the land lying wholly below center line of the canal, which is susceptible of irrigation from this system. In this list, there are included subdivisions in which lie high points. These subdivisions are noted in the second list, giving the acreage that is high in each subdivision. The third list comprises those subdivisions, containing land which lies above or is crossed by the canal.

5. MINERAL LANDS: There is no land contained in the accompanying lists upon which there is valuable deposits of coal or other minerals.

Respectfully submitted,

(Signed)

A. E. ROBINSON,  
State Engineer."

(E):

"LAND DEPARTMENT  
STATE OF IDAHO.

Boise, Idaho, March 12, 1912.

I, JAMES H. HAWLEY, Governor of Idaho, do

hereby certify that I am the presiding officer of the State Board of Land Commissioners of the State of Idaho; that I am charged with the duty of disposing of the lands granted to the state in pursuance of Section 4, act of August 18, 1894, (28 Stat., 373-422), the act of June 11th, 1896 (29 Stat., 434), the act of March 3rd, 1901, (31 Stat., 1133-1188, and the act of May 27th, 1908, (35 Stat., 317-347); and that the laws of said State relating to the said grant from the United States have been complied with in all respects as to the following lists of lands which is hereby submitted on behalf of the said state for the issuance of patent under said acts of congress.

(Signed)

JAMES H. HAWLEY,

Governor of Idaho and presiding officer of the State Board of Land Commissioners of said State."

(F):

"OFFICE OF THE STATE ENGINEER.

STATE OF IDAHO)

) ss.

COUNTY OF ADA)

A. E. ROBINSON, being duly sworn, deposes and says that he is the State Engineer of the State of Idaho, charged with the duty of supervising the reclamation of lands segregated under Section 4, act of August 18, 1894, (28 Stat., 372-422), the act of June 11, 1896 (29 Stat., 434), the act of

March 3, 1901 (31 Stat., 1133-1188) and the act of May 27, 1908 (35 Stat., 317-347); that he has examined the lands designated on the foregoing list and that an ample supply of water has been actually furnished in a substantial ditch or canal for each tract in said list sufficient to thoroughly irrigate and reclaim it and to prepare it to raise ordinary agricultural crops.

(Signed)

A. E. ROBINSON,

*State Engineer, State of Idaho.*

SUBSCRIBED AND SWORN TO before me this  
12th day of January, 1912.

(Signed)

CLARA M. BROWN,

(SEAL)

*Notary Public.*

My Commission expires May 23, 1915."

(Said Exhibit need not be included in full in the record but the Clerk will transmit the original Exhibit to the Clerk of the Circuit Court of Appeals for the use of the members of that Court.)

C. C. THOM, called as a witness on behalf of defendants, testified as follows:

DIRECT EXAMINATION.

By MR. WALTERS.

I reside at Calgary, Alberta, Canada. I formerly resided in the State of Washington. I was employed by the State and Federal Experiment Station as soil and irrigation specialist. I have been engaged in that line of work in the arid west from 1909 until 1915. That work took me to the States of Washington, Oregon, California, Idaho, Utah,

and for a short time in Arizona. At the present time, I am engaged chiefly in a consulting capacity in that line of work in the State of Idaho, in the State of Washington, in the State of California, and in the Province of Alberta. I have had occasion to examine as to the soil and conditions the Salmon Project, the South Side Twin Falls Project, the North Side Project, the Idaho Irrigation Company Project, and the Lewiston-Sweetwater Company in northern Idaho. I examined the Salmon Project on two occasions in 1914 and 1915, and spent some six weeks in the field examining the soils and agricultural conditions generally on that project. I went over the South Side Twin Falls Project for the purpose of drainage work and was there about a week at one time. I spent about three weeks examining the soils and agricultural condition on the Twin Falls North Side Project. That was about three years ago, if I remember correctly. I was about three weeks in the field but I was longer on the Project. My line of work is specifically soils and irrigation. I am familiar with the Idaho Irrigation Company Project. I first became acquainted with the Project in May, 1918. I did visit the State Experiment Station at Gooding a couple of times previous to that. I was engaged by the Idaho Irrigation Company about May, 1918, as a soil and irrigation investigator to find out the condition of the soil, types of soil, and the extent of the same over the Project, and to make experiments to determine the

proper duty of water. I can't answer definitely as to the number of men employed with me in that investigation. There were several of the Company employees associated with me in the work. Allen P. Senior was employed by the year directly in this work, and four or five assistants during the summer months. Since May, 1918, we have been collecting samples of soil over the various tracts of the Project, determining the depth of the soil, the character and type and the extent of these characters and types of soil, determining the water holding capacity, with the view to getting the facts as to the general characteristics of the soils of the project, their depth, the underlying stratas, and their adaptability in general to irrigation. In all, we saved for examination some twelve hundred samples of soils. These samples were obtained with the soil augur to a depth of five feet, where we could obtain such. We did not go deeper, although the soil on many occasions was deeper than five feet. Each foot was retained separately and examined separately. The analyses of these soils show that we have a very fine type of soil on this Richfield tract. The soils, I may say in general, are all sandy, but there is a considerable difference in the size of the soil particles, and we have classified the soil on the Richfield tract chiefly as a very fine sandy loam. By loam I mean a soil which is not completely composed of sand, but contains other soil components, such as silt, clay, and some humus, but



fine sand predominates; consequently we class that as a fine, sandy loam. That is colored red on the map. By fine, I have reference to the size of the soil particles. We find that the Richfield tract is composed of this type of soil, and a large—practically all of the North Gooding Tract, portions of the South Gooding Tract, and a portion of the Dietrich Tract. These soils, I may say, especially the Richfield Tract, are the deepest soils we have on the Project—in many, in going to five feet we struck no obstructions whatever. The color marked yellow on this map is the medium sandy loam. The individual particles of this type of soil are somewhat coarser than the other type, and we find the majority of this area in the South Gooding and in the Dietrich Tract. The green is coarse, sandy loam. This is found very largely on the central portion of the Dietrich Tract, with some small areas in the South Gooding Tract.

These samples were taken into the laboratory, dried and a definite quantity weighed out. These were separated into two parts, the sandy part, and the silt and clay together as another part. They were separated by a stream of water, the velocity of the stream being such that it carried over the silt and clay, leaving behind the sandy particles, which we weighed and got the other by difference. I have examined some twelve hundred samples by this method. That would be increased materially when I say that we examined each foot of twelve hun-

dred samples. In the majority of cases we had four or five samples from each original sample that we examined.

The samples which we collected were taken, and their water holding capacity was determined by the usual laboratory methods, and these were confirmed by tests in the field, by taking samples from the soil immediately after irrigation, to show—I won't say immediately after irrigation,—some twenty-four to thirty-six hours after irrigation, after the water had been evenly distributed, and so on, to compare our laboratory tests. In this way we arrived at the maximum capillary capacity and also at the capacity at which we find the soil in the most friable condition. This is the condition in which plants attain their maximum rate of growth.

When we found the percentages of these, we took these and platted them, as I have them here on this chart. This shows, not the total capacity, but the capacity at which best growth is attained. And I have it here for each tract, the North Gooding, South Gooding, Dietrich, Richfield, and the Project average. The project average shows an average of 16.3 per cent. The Richfield Tract, 17.2 per cent. The Dietrich Tract, 14.8. The South Gooding, 16.2; the North Gooding 16.4. These figures mean that when the water which has been added to the soil has adjusted itself and spread throughout all the soil and the plant is at its best growing condition, if we take a sample from that soil we will find

that were were the percentages of moisture, by weight, all these determinations are by weight, percentage by weight. That is, if we had one hundred pounds of soil and water, 16.4 would be water and the rest soil. By this method, we found the moisture reaching capacity of the soil over the various four projects, averaged 16.3 per cent. We used some twelve hundred samples in arriving at this determination. We collected the samples in the summer months and the work was done during the winter months of the past two winters. I have the record with me of each individual sample treated.

We found that the coarse or sandy soils of the Dietrich Tract for instance, had an average capacity of twelve per cent. That would be the one extreme, whereas the Richfield had a capacity of seventeen per cent. Now, understand me, that is not their total water capacity. I am speaking of that condition when we get best growth. Their total capacity would be from five to ten per cent higher in each case.

In addition to that, we found that when the plants begin to wilt, that there would be remaining in this average type of soil some seven or eight per cent of moisture, showing that plants were able to take out of this soil about eight per cent of moisture, when it held 16.3 per cent. That would be equivalent to a capacity for an irrigation of six acre inches on a four foot column of soil. That

these soils have a capacity in bringing them to this condition, of six acre inches per irrigation.

The plant does not profit or benefit by the excess moisture above six acre inches for irrigation provided there is about eight per cent of moisture in the soil, which we found to be near the wilting point of a plant.

If the soil was perfectly dry to begin with, the amount of water that the soil would hold to a depth of four feet would be about one acre foot. That would bring it to 16.3 per cent. If it was perfectly dry, it would take about sixteen acre inches to bring it to its maximum holding capacity for a depth of four feet. That would bring it to the point of saturation, capillary saturation.

I found in all instances that the subsoils were finer than the surface soils. The substrata of the coarser soils on the Dietrich Tract is much finer than the surface layer of soil. In many instances we found a layer of hard pan underlying this tract, and more or less of that hard pan condition exists all over that tract, more in particular at the east end of it. The same holds true on part of the South Gooding Tract, and we find a little varying in thickness of a white carbonaceous material underneath all of the soils, speaking generally, in this southern Idaho country. That is formed by the carrying down at sometime of the soluble salts to a certain depth, where they have been deposited. This

layer, I may say, is more or less impervious to water.

The soil on the Idaho Irrigation Company's Project is very similar in water holding capacity, almost alike, with the soil of the Twin Falls South Side Project. The subsoil layers were finer than the surface layers, and the test of soil on a given part of the South Side Project would be approximately the same as it is on the average for the Idaho Irrigation Company's Project.

The Salmon project is somewhat different from this, in that most of the Salmon project is underlaid at a depth varying from one foot to two feet by a hardpan layer which is quite impervious to water. There is not the depth of arable soil on that project that there is on this project.

I can't remember how many borings we made on the Salmon River Project in our investigations, but we made a great many. I know that we prepared a map similar to this one and that we made a great many borings.

The soils on the South Side Twin Falls Project and the Idaho Company's Project are very similar. We find that we have some sandy blow soils along the Snake River Canyon that are very similar to the sandy soils of the Dietrich Tract, and the smaller portions of the Gooding Tract. As we proceed further back from the river canyon we have the finer type of soil, as represented in the Richfield and North Gooding tracts.

With the exception of the Salmon Tract, which is underlaid by the hard pan layer, I would say that the three tracts that we have just been discussing, the remaining three tracts are very similar in regard to porosity.

The amount of water required on the Salmon project would vary and would be greater, for this reason, that the soil there is shallow; it does not hold or has not the capacity for moisture that these soils have, necessitating more frequent irrigation, and exposing a wet surface to evaporation and more continuous wastage from the surface run-off.

Our endeavor was to take a sample of soil on each forty acres of cultivated land, and as many others as we deemed necessary to connect up the whole tract. Now, when I say that we took twelve hundred samples and took them to the laboratory, that does not mean that that was all the borings we made. We made others to verify our results before we took a representative sample to the laboratory. The average depth of soil figured out from all of our samples is approximately four feet. To be exact, it is 3.83. I took no samples below five feet. My basis was from five feet up to six inches. I made calculations as to the areas of fine, medium and coarse soils in relation to the entire project. On the Richfield Tract there are 29,130 acres of fine, sandy loam, that we examined and 240 acres of medium sandy loam, which we found along the river bottom. On the North Gooding Tract there were

25,850 acres of fine sandy loam, medium sandy loam 360 acres, coarse sandy loam 320 acres. On the South Gooding Tract there are 4,270 acres of fine sandy loam, 8,680 medium sandy loam, 3,100 of coarse sandy loam. On the Dietrich Tract there were 5,320 acres of fine sandy loam, 13,500 acres of medium sandy loam, 12,120 of coarse sandy loam. That does not include all of the area which might be subject to irrigation. This includes the land that was in cultivation and the more adjacent parts of it. There is very little difference between the water holding capacities of the subsoil on the Idaho Irrigation Company Project and that of the other three projects that I have mentioned. The types of soils are almost identical and while I cannot remember definitely my figures on those other projects, there should be very little difference.

Defendant's Exhibit "4", being a map of the project, showing in different colors the three classes of soil, fine, sandy loam, medium sandy loam, and coarse sandy loam as the witness found the same on the project, was admitted in evidence. (Said plat need not be incorporated in the record on appeal, but the Clerk will transmit the same to the Clerk of the Circuit Court of Appeals, for the use of the members of that Court.)

Defendant's Exhibit Number "5", the same being a chart showing the moisture capacity of the soil on the four different tracts in the project and the average for the entire project, was admitted in

evidence. (Said chart need not be incorporated in the record on appeal, but the Clerk will transmit the same to the Clerk of the Circuit Court of Appeals, for the use of the members of that Court.)

Defendant's Exhibit Number "6" shows the results of some experiments in applying different amounts of irrigating water for the production of wheat. Taking just this portion of the Exhibit first, the red color represents the depth in acre inches applied to the soil. On the tract, I may say—to correct any impression—that this is down on the Richfield Tract, and on typical soil of the Richfield Tract. The red portion here indicates the acre inches of water applied; the black the yield received from that application in each case. On the first plot, as you can see, we put on this amount of water, and we took that amount of yield, as we go right across. In 1918, we had on the plot something like ten inches of water and got a yield of forty and one-half bushels per acre. The next was twelve and a fraction inches of water, and we got a yield of forty-five bushels per acre. The next was an application of 16.37 inches of water, with a yield of forty-seven and one-third bushels of wheat. The last was an application of twenty-three inches of water, with a yield of fifty-five bushels of wheat. That plat represented four experimental plots.

In 1919, we had a duplicate of this, using two plots on the Richfield Tract (referring to Exhibit



"6". Here we had a definite quantity of six acre inches, and received approximately thirty-five bushels. Here 12.45 acre inches, and had 44.75 bushels. This one was eighteen and a fraction inches, and we had forty-three and a fraction bushels. Here we had twenty-four and a fraction inches of water applied and received fifty-two and a fraction bushels of wheat. This water, I may say, was applied directly at the head of the plot and the amounts that I have given include the surface waste and waste by deep percolation. In 1918, we found that the wheat yield produced on the four plots by the application of the first acre foot of water was 45.2 bushels. By adding an additional acre foot of water, the yield was increased 10.73 bushels. That is represented on the chart. In 1919, the first acre foot gave a yield of 44.75 bushels, the second acre foot gave an additional yield of 8.04 bushels. In 1919, we also experimented with land that had been fall plowed. It was on the Richfield Tract. We had four plots using applications of six, twelve, eighteen and twenty-four inches approximately on each plot. We have obtained the following results: The first plot received 5.94 inches of water, and we had a yield of thirty-two and three-quarter bushels. The next plot, 11.8 inches of water, with a yield of 44.9 bushels. The next plot had an application of 17.87 inches of water, with a yield of fifty-one bushels. The next plot had an application of twenty-three and three

quarters inches of water with a yield of 45.9 bushels.

The soils on which these plots were laid and the experiments conducted, were the fine sandy loam on the Richfield Tract with an average depth of three and one-half to four feet. This plat was taken in May, after it had been seeded by one of the farmers of that district. We simply went into his field and cut out these areas and agreed with him to irrigate it as we liked. He had prepared the land and seeded the grain, and the grain was then up. This land we prepared ourselves. One was spring plowed and the other fall plowed. This one in 1918 was conducted on a piece of land about one hundred rods from where these were conducted, in the same piece of land.

In 1918 and 1919, we conducted experiments with alfalfa on the typical soil of the Richfield and on the coarse sandy loam of the Dietrich Tracts. On the Richfield Tract, in the spring of 1918 we took a piece of alfalfa which had been seeded two years before, and laid it off into eight plats, of approximately sixty-five one-hundredths of an acre in each plot. Beginning with one plat we endeavored to make this set-up, that we would have the eight plats, beginning with eighteen acre inches for the first one, and increasing it by six inches, or approximately that much, and until we had put on sixty acre inches. This plat was actually 17.82 acre inches. I am referring now to the plat marked

defendant's Exhibit Number "7". This plat received 17.8 acre inches, with a yield of 4.8 tons. The next plat, 23.76 acre inches, with a yield of 5.04 tons. The next plat, 28.87 acre inches, with a yield of 5.76 tons. The next plat, 36.06 acre inches, with a yield of 5.68 tons per acre. The next plat, 41.17 acre inches, with a yield of 4.84 tons. The next plat, 53.61 acre inches, with a yield of 5.58 tons. The next plat received practically the same amount, 53.4, and we had a yield of 6.29 tons. The last plat received 69 acre inches and we had a yield of 5.76 tons.

In 1919 on the Dietrich Tract, we had eight plats and endeavored to put on the same amounts of water, or approximately the same, as we had in the 1918 experiments at Richfield. The land was obtained from one of the farmers of that district, just as we found it there. It was in alfalfa, I cannot state how long, some years before. We took it and laid it off into plats, and agreed to irrigate it as we saw fit. The first plat received 18.33 acre inches, with a yield of 3.92 tons. The second plat, 22.78 acre inches, with a yield of 3.9 tons. The next plat received 30 acre inches, with a yield of 4.3 tons. The next plat, through an error in calculation, received only 28.75 acre inches, but had a yield of five tons. The next plat had 34.46 acre inches, with a yield of 5.29 tons. The next plat, 38.63 acre inches, with a yield of 5.44 tons. The next plat, 44.36 acre inches, with a yield of 5.37

tons. The next plat, 48.72 acre inches, with a yield of 4.83 tons. I don't know whether I stated it before or not, but this was performed on the coarser type of soil on the Dietrich Tract, the soil standing on top and underlaid with a finer sub-strata.

Exhibit "9" shows a continuation at Richfield and on the same plats that we conducted the alfalfa experiments in 1919. We repeated as nearly as we could the results in application of water to exactly the same plats. That is, the plat which received eighteen acre inches in 1918 received eighteen acre inches in 1919, and so on to the higher applications. The Exhibit shows, with an application of eighteen acre inches, we got 4.4 tons. With an application of 23.73 acre inches, a yield of 4.63 tons. With an application of 30.23 acre inches we had a yield of 3.68 tons. With an application of 29.16 acre inches, a yield of 4.28 tons. With an application of 3.59 acre inches a yield of 3.07 tons. With an application of 37.6 acre inches, a yield of 3.4 tons. With an application of 44.77 acre inches, a yield of 5.73 tons. With an application of 47.6 acre inches, a yield of 5.6 tons. I wish to state in connection with this experiment that this plat or series of plats was badly hit by frost in the early part of the season, and as a result you will find a great deal of variation in the yield of these plats. I note in particular that the plats which received thirty and thirty-four—thirty-three and thirty-seven acre inches, we got almost no yield from the first cut-

ting due to frost. There was one or two of those plats, in which one of the stock men of that district letting his cattle get away, to eat some of it off, but the discrepancy is chiefly due to frost.

The upper part of this Exhibit Number "8" is the average of two experiments with alfalfa. That is, for the year 1918 at Richfield, and for the year 1919 at Dietrich. This is the average of those two plots. The lower part of this Exhibit is the average of all experiments with alfalfa, including this one which was so badly hit with frost. The upper one of this shows an average application of 18.08 acre inches of water, with an average yield of 4.47 tons. The next one, 29.46 acre inches applied with a yield of 5.04 tons. The next plat, an average of 32.4 acre inches with an average yield of 5.36 tons. The next plat, an average application of 37.82 acre inches, with an average yield of 5.07 tons. The next plat, 46.12 acre inches with an average yield of 5.51 tons. The next one, an average application of 48.86 acre inches, with an average yield of 5.84 tons. The last plot, an average application of 53.86 acre inches, with a yield of 5.3 tons. The three-plat average, that being the average of the two years at Richfield on the Richfield soil, and the one year at Dietrich, on the coarser type of soil of that tract, shows, with an average application of 18.05 acre inches, we have an average yield of 4.26 tons. With an average application of 23.31 acre inches, we have an average yield of 4.52 tons. With an

average application of 29.72 acre inches, an average yield of 4.58 tons. With an average application of 31.33 acre inches, a yield of five tons. With an average application of 36.41 acre inches, a yield of 4.4 tons. An average application of 43.2 acre inches, an average yield of 4.81 tons. An average application of 47.51 acre inches, an average yield of 5.8 tons. An average application of 55.91 acre inches, with an average yield of 5.25 tons.

Defendant's Exhibit Number "8" is an explanation of all the plats.

Whereupon Defendant offered in evidence for the purpose of illustrating the testimony of Mr. Thom, Defendant's Exhibits "6", "7", "8", and "9". Thereupon, Mr. Bissell for plaintiffs, asked leave to examine the witness further with reference to the Exhibits, and upon examination of Mr. Bissell, the witness testified as follows:

The water measurements on these tracts were made at my direction. I did not make them myself. Mr. Gorton made some of them. It was generally in charge of the engineers. Some of these plats were near Richfield. There were just a short distance from the center of the town. I did not measure the water myself. My best information is that Mr. Gorton made most of them. The amounts of water represented on the plat are the amounts which were applied to the land directly at the head of the plot. The waste or run-off was not deducted from these figures as given. The figures

given included run-off from the end of the corrugations in each instance.

MR. BISSELL: Your Honor, I would object to the introduction of the plats at this time, on the ground that the item of measurement of water as shown there is hearsay, unless the defendant will assure us that the man who actually made the measurements will appear and verify the measurements as alleged.

MR. WALTERS: As well as will Mr. Senior, the man who had charge of the laboratory in Richfield, will appear and testify to this matter.

Witness continues—examination by Mr. Bissell).

I did not make the measurements of the productions that were taken from these lands. The only information that I have personally is from those under my direction who worked under my direction. I did not see all the water measured or the products weighed. I saw some of the water measured and I saw some of the products weighed, but not all.

MR. BISSELL: If the Court has sustained the objection to the introduction of the plats at this time, for the purpose of protecting the record I would move to strike all testimony relative thereto.

MR. WALTERS: As I say, we will produce those. We cannot produce the testimony all from one witness. I am a little surprised at my friends being so technical, when that rule was not invoked on our side.

MR. BISSELL: I made the statement that I would have no objection to them going in at that time if you will agree to later identify them.

MR. WALTERS: Very well—I will withdraw my offer now. We will offer them later, after we have the other testimony.

MR. BISSELL: That being the case, Your Honor, I urge my motion to strike is proper at this time, if counsel is going to be as technical as that.

THE COURT: Well, the witness' explanation may stand tentatively. I don't know how far, however, he should be interrogated further as to results which were wholly conditional upon facts which are not shown. Apparently this witness knows very little about the facts which are disclosed diagrammatically upon these plats. He has apparently taken reports from other people. I would assume from what he says that that is the case.

MR. WALTERS: Where he has supervised and directed the doing of these things, the rule admits of the superior testifying as to the result of those who acted under him.

THE COURT: Oh, to a certain extent.

#### EXAMINATION.

By MR. WALTERS.

I was at Richfield part of the time when the experiments were being carried on. I was not there all of the time. I endeavored to be there once every



six weeks and to spend two or three weeks each time while I was there.

THE COURT: No, I don't think the rule would be extended that far. There are too many opportunities for error, and too many opportunities for fraud without implying—

MR. WALTERS: Yes, we even, of course, will want to foreclose any possibility of that ourselves. The motion, however,—

THE COURT: The motion is denied; that is, the motion to strike out all the witness' testimony. And you have suggested, you cannot put in all the testimony at one time, but I think before you call for any other conclusions now which would necessarily be based upon the facts involved in these plots, you would better produce verification.

MR. WALTERS: Yes, I would be pleased to conform to the suggestion of the Court. You may cross-examine.

ALLEN SENIOR, called as a witness on behalf of defendants, testified as follows:

DIRECT EXAMINATION.

By MR. WALTERS.

My home is in Twin Falls. I have been employed in the past two years by the Idaho Irrigation Company at Richfield under the direction of Professor Thom of Calgary to irrigate a series of plots which were to be what you might call experimental plots. 5.20 acres of alfalfa were within the town of Richfield and four plots in wheat were

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close to or adjacent to Richfield. That was in the year 1918. In 1919, we had seven or eight acres in Dietrich in alfalfa, also the same plots, in Richfield in wheat and alfalfa. The plan of operation was by Professor Thom. I was the one that did the irrigating. Mr. Gorton had charge of the measurement of the water in 1918, and during 1919, Mr. Crosby, the hydrographer of the Company, had charge of the measurement of the water. I kept daily records of the water measurements. We had two men, one for the day time and one for the night. The water was measured every hour and an accurate record kept of the same. Mr. Crosby, I believe, has those records. In 1918, Mr. Gorton did the measuring in the day time and H. L. Dicer measured them at night. The products received from these plats were weighed upon the Youngkin scales at Richfield. After the hay was stacked and settled thirty days, it was measured and computed also that way. Mr. Crosby has the weighmaster's tickets. They are in Boise and available to counsel if they want them. I didn't help in the preparation of the plats in the year 1918. Those plats were selected apparently from standing crops or grain that had been seeded, or had been seeded years before. I simply re-corrugated the wheat plat for 1918. I assisted in the preparation of the graphs. I made those.

Q. I will ask you if they show correctly in a diagrammatic manner the result of your experiments,

in yield, during the two years, and at the points indicated?

MR. BISSELL: I object, for the reason that the witness has not shown himself competent to testify that the plots correctly show the result of the experiment. It has not been shown that he measured the water, or that he personally weighed the product, or that he has any personal knowledge of the matter to which he is testifying, except the manner of irrigation.

MR. DRISCOLL: We object on the ground of hearsay, Your Honor.

THE COURT: Sustained.

(Witness Continued) The product was weighed on the public scales in Richfield by Mr. Youngkin or his clerk or assistant. I was there and received the way ticket immediately, I went down with every load. The wheat was taken from the thresher returns; he sent in his account, and we also re-weighed it on our own scales, Mr. Gorton in charge. I was there helping him, and saw the thing weighed. I might say in connection with that, I personally helped to put the grain on the scales, and I went with the alfalfa to the scales. That is as much as I could do. I could not carry it there or carry it away. I saw it weighed, I took the ticket from the weighmaster.

The alfalfa experiment on the Dietrich Tract was on what we call a coarse sandy loam. We rented from Mr. Gage about seven and one-half or eight

acres and it was subdivided into eight acre plots. The soil varied in depth but I generally got it about four or five feet on every test that I made. I made eight different tests on each plot and there were eight plots, making sixty-four tests in all.

The experimental plot at Richfield was on what we called fine sandy loam soil. It was typical of the soils of the whole Richfield Tract, by comparison with my samples I have taken in various places over the Tract. In conjunction with Mr. Lewis, the man that I had under me at that time, I took all the samples, in the neighborhood of twelve hundred. We endeavored to get a fair average sample from each cultivated forty over the entire project. Our augur being five foot six, that was the extreme depth of our borings. After the soil was taken from the hole by the soil augur, each foot sample was placed in an individual sack, numbered, given a sample number, and a foot number. They were tied together and taken up and put in the laboratory and kept there until they were dry. Those samples are now in the same laboratory. I practically analyzed the soils myself. The process of analysis employed in the laboratory was as follows: The first process that they underwent, I would take fifty grams of soil, and I would give it what I called the moisture capacity test, ascertain that, and tabulate it, and then put it into flasks. Then I would take a dilute solution of hydrochloric acid and pour

into the flask and leave it digest there twenty-four hours.

MR. BISSELL: Just a moment, Your Honor. I submit that this man is going into chemical experiments at this time without any proof of qualification whatever, the witness not having shown himself competent to answer these questions.

THE COURT: You say that you, together with someone else, gathered all of these samples?

A. Yes, sir.

Q. About twelve hundred?

A. Yes, sir.

Q. Those are the same samples referred to by Professor Thom?

A. Yes, sir.

Q. Were those all kept there at Richfield?

A. Yes sir.

Q. They never were sent away?

A. No, sir.

Q. Well, Mr. Thom referred to some analyses of these plats made and tests, and so forth—he didn't make them himself, but made them through you?

A. Yes, sir. I worked under his direction.

Q. When he was there?

A. No. He was there part of the time, not all of the time.

THE COURT: Gentlemen, I assumed that Professor Thom was testifying to facts of his own—

MR. BISSELL: We too assumed that, Your Honor.

MR. WALTERS: Of course I had in mind the manner in which Dr. Harris testified, Your Honor, to the experiments extending over a great number of years, seventeen years, I think.

THE COURT: Those were experiments made in the court of scientific investigations and under his direction. Here is an experiment made for the purposes of this suit, by a privately employed individual. A different rule applies.

(Witness continued):

I separated the sand from the clay in the soil analysis.

MR. WALTERS: Q. Detail the process employed in separating—

A. I would weigh one gram of dry soil—

THE COURT: I think you will have to qualify him, gentlemen. He gets into matters that evidently require scientific knowledge and perhaps scientific experience. The ordinary man couldn't do what he suggests he did.

MR. WALTERS: I see, Your Honor. As to weighing a gram of soil?

THE COURT: Yes. He speaks of so many grams of dry soil. That means one thing in a popular sense and another in a scientific sense.

MR. WALTERS: I can ask him as to his experience. He has had experience elsewhere.

THE COURT: You may qualify him as far as you can. But I shall have to sustain the objection.

(Witness continued):

I have been more or less interested in this line of work in the mechanical process of separating soils for the last fifteen years. As a farmer, I am a farmer, I conducted these experiments largely on my own account. In the fall of 1917, I collected samples and made similar tests for the North Side Land & Water Company. The processes employed there were practically the same. I spent about three weeks or more on the North Side Project in collecting samples at that time, and making similar analyses of those same soils, some several hundred samples, at that time. I collected on the Salmon Tract for the use of Mr. Thom during the falls of 1914 and 1915 similar samples.

Q. Now then, returning to the Richfield. I will ask you to explain what was done by you mechanically, as a mechanical process?

MR. BISSELL: Just a moment. I object to further questioning of this witness concerning any scientific analysis as it is not shown that he is qualified in any respect to make such tests and examination or determination. It certainly is cardinal that this sort of qualification is not sufficient to qualify a man to testify from a scientific standpoint. Otherwise testimony that a man had practiced medicine somewhere would qualify him to practice medicine in Idaho.

THE COURT: Overruled. But note the question, Mr. Senior. You are simply to state what you

did mechanically. That is, as to a mechanical division of the soils or collection of the soils.

A. Judge, I cannot go any further with those questions unless I go into it in a rather scientific way.

THE COURT: If you want him to show whether he turned over to Mr. Thom a bottle of earth, you may do that. But he says he cannot go ahead without going into the scientific phases of it.

MR. WALTERS: Q. Well, at the suggestion of counsel, I will ask Mr. Senior what study he has made of soils in different places, its extent and what he has done in that respect?

A. In answer to that, Judge, it is something like this: Unfortunately I haven't got the "B. S." on the end of my name. I never went to school. My study is simply in the line of practical work and research.

Q. Where?

A. By twenty years of farming.

Q. And in that connection what have you done, what have you studied or read in a scientific way as to soil and its structure, its component parts, etc.?

THE COURT: We are not interested in whether you have a 'B. S.' or not, Mr. Senior. We want to know whether you have the proper training scientifically to answer these questions. If you are a self-educated scientist, very well, let us know how far you have gone in that way. Have you read books on soils?



A. Yes, I have studied Wiley some and other books.

MR. WALTERS: Q. What you you understand, if anything, about the measurements? You used the terms "grams" etc. Explain that.

A. A gram is a component part of the metric system, and is used usually in the measurements of finer particles of soil like that, on account of its easy method of calculation. I use it, the scale that I uses the metric system of weights and measurements.

THE COURT: Q. You understand that system yourself, do you?

A. Yes, sir, I understand it sufficiently to use and compute by it. Just as I understand the other scales of weights and measures of our own system. I wish to state right here though that the work that I have been doing was by a method of Professor Thom's, and I worked under his direction and did the mechanical part of it.

MR. WALTERS: Q. What study have you made or observation, if any, as to the different characters of soil, the distinction between silt and clay and sand, etc.?

A. Well, by an extensive course of reading of various kinds, and in places, different books, anything I could read on the matter.

Q. What is the difference between silt and clay?

A. Clay is supposed to be the finest particles of soil matter that we have. Silt is the next finer par-

ticles of soil. Fine sand is the next, and so on until we come to the coarser grades.

Q. I will ask you now, Mr. Senior, to describe the mechanical process used by yourself under the direction of Professor Thom at Richfield in classifying these soils?

A. We have in the laboratory a set of sieves that are meshed from ten to as fine as two hundred meshes per inch. I would take a sample of soil, say fifty grams, or one hundred grams—it is immaterial—and then put them in the mortar and pestle them up so that I could handle them and seive them through these different grades of sieves and weigh them through these different grades of sieves and weigh them up. I would measure those in the ten mesh, and so on, until we come down to the two hundred mesh. The greater per cent of any one of those component parts of that sample would be the way in which I would analyze or call that sample by name. If the coarser sands predominated, I would call it coarse sand. If the medium sand would predominate in weight, I would call it a medium sand. If fine, likewise. Then if I used the column of water, that is, I would take a gram of dry soil and place it in a glass tube ten or twelve inches in length, and with a rubber tube suspended from a tank, I would let water run sufficient to gently agitate this sample of sand, and with sufficient force and volume to wash out all the finer particles of silt or clay. The silt would wash out

first. usually, that is, the clay, the silt would come next, and I would leave that run until it clarified itself in that tube, and then I would pour off that and refill it with water and agitate or shake it until it was thoroughly mixed up, and leave it stand for a period of three minutes, and at the end of that period, the sands or heavier soil particles would descend and settle at the bottom, and I would pour off the residue, which generally contained the finer.—if it was clay it would be suspended and it would pour off. And the same way with the silt, and the remaining portion of it. I would put that in an evaporating bowl and thoroughly dry it and weigh it. The difference would be the loss or gain. And I would put that out on a glass table and rub it over, and by a sample that I had for comparison which was an average of the two types of soil, what we had classified as such, and classify that sample of soil. The process is purely mechanical. It requires a good eye and some judgment. Any man can do it that has common sense.

Q. Who instructed you in this process?

A. Professor Thom.

Q. What was done as to recording the result of a research such as you have just indicated?

A. Each and every sample was tabulated as to the result both as to the moisture capacity of the same, the grade of sand, and the percentage of it.

THE COURT: Q. Percentage of moisture? You haven't told us how you did that.

A. Well, I can.

MR. WALTERS: Q. Go ahead.

A. I would take fifty grams of soil and put it into an evaporation bowl, a bowl I used for evaporating moisture out of the soil, and put it under a burette, that is, a long glass cylinder that is used for dropping water, that is, in a given quantity; you have control of the water with it. And I would drop as many c.c.'s of water in that soil, to obtain what I would call the moisture capacity of that soil, that is, the average capacity of that soil to hold water without having any free water.

THE COURT: Q. Had you ever done any of this work before, that is, in testing the moisture capacity of soils?

A. No, sir.

Q. How much of the work involved in these plats, as to the moisture in the soil, was done by you? Did you do it all?

A. All, sir; every bit of it.

MR. WALTERS: Q. Did you complete your statement as to the manner in which you determined the moisture holding content?

A. The amount of water which was dropped in that soil was indicated by the number of c.c.'s. In a hundred grams of soil, if I would put in seventeen c.c.'s of water, that is equivalent to seventeen per cent. In this instance I used to use fifty grams, and by using this burette, which is a long glass tube, a graduated tube, with the c.c.—in this case

it would hold one hundred c.c.'s of water, and it has got a petcock on it, you might call it, whereby you can drop it out, just as much water as you choose or cart to or need to. I would let this water drop in this pulverized soil until it reached that stage where—now, I will use the farmer's term—that it was in condition to continue the growth of crops, and that would be in condition where it would practically ball up.

THE COURT: Q. That is what is shown on that diagram as to moisture in the soils, which have been introduced here?

A. Yes, sir.

Q. You prepared that diagram?

A. Yes, sir.

C. C. Thom, recalled by the defendants, testified as follows:

#### DIRECT EXAMINATION.

By MR. WALTERS.

From 1904 until 1916, I was a teacher in agriculture in universities or state colleges. Three years with the University of Toronto, and the remainder of the time, with the exception of six months that I was putting in in studying, doing some research work, at the State College for the State of Washington at Pullman. Teaching the determination of moisture holding contents of soils was one of my particular lines of work, and I would teach that to all the students I had in my charge. The system that I devised and adopted for use in

the investigation for determining the moisture holding contents of the soil on the Idaho Irrigation Company Project and the experiments conducted in 1918 and 1919 at Richfield was as follows: Samples of soil were collected. These were taken to the laboratory. They were dried, that is, air dried. The hygroscopic moisture was not taken out for this particular work. And for part of these samples we determined the total capillary capacity by means of allowing the soils to become saturated, and then setting them aside and allowing free drainage, letting all that would drain out do so. That which remained was held by the soil and could properly be spoken of as the capillary capacity. We then went to the field just after the soil had been irrigated and allowed to drain for twenty-four hours, and verified our laboratory test against the same soil in the field, and from that arrived at the capillary capacity of that soil. Now, a full capillary capacity is not the point of moisture content in the soil at which plants respond with a maximum growth. That point is where the soil is in a good, tillable condition. We also determined the moisture at that point by the addition of water to the soils which have previously dried. The mechanical processes described briefly was as follows: The soils which we collected were taken to the laboratory, dried, first sifted into various sized particles, in accordance with the adopted method of the United States Department of Agri-

culture. The soil was not pounded up in a pestle. The aggregates of soil that were wet were simply rubbed; it was with a pestle that had a rubber on the end of it. There was absolutely no attempt to break the soil particles.

I am now testifying as to what I did and not as to what anyone else did. These soils were simply rubbed, as I said, to simply break down what you might call clods in the field, and break the adhesion between the different soil particles. Then the soils were sifted into their various grades, and a determination made of the various amounts of sand. With that determination we found that the soils on all these tract were of a sandy nature. There was more sand percentagely than any other grade, in per cent. We put it through the seives, and the soil remaining on each sized mesh or each seive was weighed sparately, and, as I said before, that gave us an indiction of the percentage of sands and the total per cent of the soil that could be classed as sand in each sample. A further mechanical test was given by agitating a known weight of soil with water. Due to the size of the silt and clay particles, these will not settle in water in less than a minute. Now, if the water was poured off in a less time than a minute, we poured all the clay and silt, and what remained was sand. We put the samples through that same test and determined the percentage of sand likewise. It does not take a scientifically trained man to perform this

experiment. It is purely mechanical. In my investigations upon the Twin Falls North Side and the Salmon River projects, I employed Mr. Senior, the witness who was last on the stand, to assist me in that work. Out of the 1,200 samples collected under my direction, I took 283 of these myself. I put through the process of moisture capacity 248 out of these and checked several that I did not take myself. From these experiments and observations, I am able to testify as to the average moisture holding contents of soil on the four tracts of ground on the Idaho Irrigation Company Project. The samples that I took in person and determined in person were from all over the tract. Based upon this experience and determination, I found the average moisture holding contents of the soil on the Richfield Tract to be approximately 17.2 per cent; on the North Gooding Tract, 16.4 per cent; on the South Gooding Tract, 16.2 per cent; and on the Dietrich Tract, 14.8 per cent. These figures are the best moisture holding capacity for plant growth.

#### CROSS EXAMINATION.

By MR. BISSELL.

The total capillary capacity, by which I mean, the water which the soil will hold when it is readily drained, is from five to ten per cent higher than the figures I gave for best growth. When I say seventeen per cent of moisture, I mean that one hundred pounds of soil will hold seventeen pounds



of water, or we can take it the other way, in which I figured the percentage of the total capillary capacity. For instance, the Richfield soil holds 26 per cent of moisture total capillary capacity. That would mean that in one hundred pounds of soil there would be 26 per cent moisture and 74 per cent of soil. The percentage of moisture most favorable for plant growth is just about the same for all plants. Speaking generally, this point is about two-thirds of the maximum capillary capacity of the soil.

#### RE-DIRECT EXAMINATION.

By MR. WALTERS.

There is a very small difference in the point at which plants cease to take moisture from the soil, but they differ in the rate of taking moisture from the soil. It depends upon the rapidity with which they make growth. Alfalfa will take it out more rapidly for the simple reason that it makes more rapid growth and requires more water to make an equal weight of growth.

#### RE-CROSS EXAMINATION.

By MR. BISSELL.

By the wilting point, I mean moisture content of the soil at which plants wilt. That varies with the different types of soil. The soils which are composed very largely of clay, it is higher than the soils which are composed of sand. That is, sand will give up more moisture to plants than will clay. On an average for the soils of Southern Idaho, it

is from five to eight per cent. I mean that there would be 92 pounds of soil and 8 pounds of water and when the soil dries out to such an extent that there is 92 pounds of soil and 8 pounds of water, the plant begins to die, that is on the finer types of soil. That would be down to five per cent. That is the extreme point, or that is the limit to which the plant can go without suffering.

L. CROSBY, called as a witness on behalf of defendants, testified as follows:

DIRECT EXAMINATION.

By MR. WALTERS.

I am an irrigation engineer. I live at Richfield, and I am employed by the Idaho Irrigation Company. I have been so employed since the spring of 1910. During the last irrigation season (1919), I had to do with the measurement of water upon certain experimental plots at Richfield, and at Dietrich. I will say that I also designed the box that was used in 1918, as well as in 1919. The box that was used in 1918 was called the submerged orifice type of measuring device. In 1919 we added to that what is known as the right angle "V" notch weir, and used that in such places, as conditions were a little better or weir measurement than they were for the use of the submerged orific. The device is read by measuring the difference in the elevation of the water on either side of the device. The difference between these measurements indicates the head or pressure, as it is sometimes

termed, on the device. This head is referred to tables, which are computed from a formula derived from a very accurate series of observations on such a device under similar conditions as those in which we used it. We use a special table. The formula, however, is standard. I had charge of the measurements of the water on these tracts, in 1919. There were six persons taking the measurements at various times during the season. These individuals, after they had measured the depth on both sides of the device as I have mentioned, would record them in a notebook provided for that purpose together with the time at which the observation was made. Some of the men who made the measurements made part of the computations, and I made part of them. I checked carefully the computations made by the men. I would say that the computations were very accurate, assuming the measurements were correctly taken. The measurements were entered in an ordinary level book such as is commonly used by engineers for notes, or rather, I should say, in a set of level books. I required a number of them. I have those books in Boise. I took a number of measurements myself. The measurements were taken once every hour. The experimenting plot at Richfield was from about 500 to 800 feet from my office. While the water was being put upon the crops, I was about this experimental plot every day in 1919, and frequently a large portion of each day.

Q. What can you say as to the accuracy of the water measurements and results obtained by yourself and those working under you?

MR. BISSELL: That is objected to as calling for a conclusion of the witness, he already having shown that he is not in a position to state of his own knowledge the accuracy of his results and hearsay.

THE COURT: Sustained.

#### CROSS EXAMINATION.

By MR. BISSELL.

During 1919, there were six different men that took these readings and measurements. One was employed at a time. These men were employed merely to make measurements. Three of them also measured the water on the Dietrich Tract. I was at Dietrich at least once during each irrigation checking up their observations.

W. L. GORTON, called as a witness on behalf of defendants testified as follows:

#### DIRECT EXAMINATION.

By MR. WALTERS.

I live at Boise. I formerly lived at Richfield. While living there, I was chief engineer of the Idaho Irrigation Company. In 1918, as such engineer for the Company, I was connected with the water measurements on certain experimental plots near Richfield. The measuring was done by means of a submerged orifice in a structure at the margin of the experimental plots. To measure the water

it was necessary to measure the head of water operating on the orific on the upper side and also the water on the other side of the orifice, that is, on the down stream side. These measurements would be made in inches. It might in tenths of a foot ,or either way. After one had ascertained these two measureemnts, it was necessary to subtract the measurements of the head below the orifice from the head measured above the orifice, and by that means determine the net head operating upon the orifice, or the actual head operating upon the orifice, from which you compute the discharge through the orifice. I don't recall that we used actual tables excepting as constructed by ourselves. I think we constructed our own tables for that purpose.

The tables used were devised from accepted formulas. I took the measurements myself personally during the daytime, or, as I remember it, from along about seven o'clock in the morning until seven or eight o'clock in the eevning, and Mr. Dysart took the measurements during the night time, the part that I didn't take. The measurements made my myself were as accurate as they could be made, as I could make them.

The computation of the water that I measured myself has not been made separately from the total amount applied. The computations were taken as a whole, covering both measurements, and it would necessitate quite a recomputation to show

the amounts of water which I measured personally that was applied on these experimental plots at Richfield in 1918, and it would take considerable time. Mr. Dysart returned to me the measurements made by him and I made the computations for his measurements including my own.

#### CROSS-EXAMINATION.

By MR. BISSELL.

My recollection is that the measurements I made were made every hour, or approximately every hour. I was chief engineer of the Idaho Irrigation Company at that time. My duties required me to be around at the various parts of the tract. I made these measurements every day personally and every hour during the time when the irrigation was actually going on. I would have to refer to a memorandum to get the exact date of the times when water was running.

H. L. DYSART, called as a witness on behalf of defendants, testified as follows:

#### DIRECT EXAMINATION.

By MR. WALTERS.

I live at Richfield. I am employed by the Idaho Irrigation Company as sales agent. I was employee of that Company in 1918. I had something to do with the measurement of water placed upon certain irrigation plots at Richfield during that year. I think I usually took the seven o'clock measurement of an evening, and then probably on every hour until seven o'clock the next morning,

about that time—sometimes it would start at eight maybe an hour later, or an hour earlier. In taking these measurements, I was required to measure the depth of the water on the upper side and the lower side of the orifice and write my measurements in a little note book or field book, at the time of the measurement. The measurements were accurate. I would have a rule, and measure the depth of the water from the top of the orifice to the water. There was no gauge in. I measured with the rule. There was no weir, it was an orifice that takes the place of a weir, put in the ditch to check the water up above the orifice. There were different sized openings in the orifice, that the water went through and wasted off of the plot. I correctly and accurately measured the places that were to be measured upon this device, and they were correctly recorded in the book that I mentioned.

#### CROSS EXAMINATION.

By MR. BISSELL.

I measured the water every night as near every hour as I could while the irrigation of those different plots was going on. I don't remember how many months or weeks that was without looking it up. It was while three crops of alfalfa were growing and a crop of wheat was growing. At different times along through the summer, when they needed irrigating, but I don't remember the exact number of days. I was sales agent for the Idaho Irrigation Company and my duties called

me to different parts of the tract. I was frequently in Gooding. I was there sometimes in the evening. There were no measurements taken while I was out of town because they were not irrigating. I took the measurements at all times while water was being put on those plots at night. I don't think there was any water applied to those plots when I was out of Richfield. My opinion is that there wasn't any. It is possible there might have been. I lived at Richfield and was there most of the time, and I never saw any other water on the plots than what was applied under my measurements and that of Mr. Gorton. I wasn't there all the time, but I don't think there was any other water put on. I was there every night during the growing season of those crops. I could get the number of nights from the field books. I turned them over to Mr. Gorton.

JOHN A WIDSOE, called as a witness on behalf of the defendants, testified as follows:

DIRECT EXAMINATION.

By MR. WALTERS.

I reside at Salt Lake City, Utah. I am president of the University of Utah, and prior to that, I was President of the Agricultural College of Utah, situated at Logan. I was connected with that institution from 1894 to 1916, 22 years. Since 1916, I have been with the University of Utah. Prior to my connection with the Agricultural Col-



lege at Logan, I was for two years connected with the B. Y. University.

I began my work with the Agricultural College as station chemist, in charge of a certain division of experimental work of the experiment station. I had charge of investigational work for the college during my whole connection with the college and the experiment station. The field of work was largely in chemistry and agriculture, within the field of agriculture the specialized field of irrigation and dry farming. I have had occasion to determine the amounts of water to be applied to land in order to raise agricultural crops. I am the author of the book called "The Principles of Irrigation Practice," published by the MacMillan Company of New York. I have written a great number of bulletins, chiefly for the agricultural experiment station. I have also published a number of papers on subjects related to irrigation and agricultural chemistry.

I have been concerned in investigations along this line in Cache Valley, Utah. That was before Dr. Harris' connection with the Agricultural College, though I may say that probably we did work together slightly after he joined the forces of the College. He became an instructor in the institution.

My study, scientific and intimate study of the duty of water has all been done within the State of Utah, that is, the experimental side of it. We

established, about the year 1900, or 1901, an elaborate series of duty of water studies. One of the first studies of the kind inaugurated I think in the world. That work was extended later on throughout the state of Utah. We served the state of Utah, and therefore that state was our main concern. However, in order to become more familiar with the subject, I traveled and my colleagues traveled over the state and over other states, with a view of confirming certain conclusions that we arrived at from time to time. My own travels have taken me over the whole western territory, though I do not claim to have made an intimate study of the various duty of water problems in all the western states. I have had occasion to investigate and consider this question in Southern Idaho. In earlier years I traveled over this part of Idaho frequently, in the earlier days of the Twin Falls project, and visited later on at Gooding station, and during the last three years, I think, I have assisted the people concerned with the Twin Falls projects—I think there are two of them; I have forgotten the names of them. I think possibly you understand which ones I mean. And also the Last Chance project, recently, I believe, before this court. I have visited the Idaho Irrigation Company Project for the purpose of determining the proper duty of water. I went over the project last summer, the last day of June and the first day of July, as my memory serves me now. I spent two days in travelling over

the project. It seemed to me that the soil on the project in question in general is the same type or series of types as that which—as those found under the other projects I have visited, a loamy soil, apparently good quality, for agricultural purposes, rather sandy, sandy loam. There seems to be variations, such as only studies such as have been discussed here could bring out. Comparing it with the Cache Valley Section of Utah, there is a general similarity in the texture of the soil. I should say, in general, the water relations of the two soils would be very much alike, not a great difference.

From the study I made of the Idaho Irrigation Company Project, I am able to determine the proper duty of water as applied to that project, assuming the project to be approximately sixty per cent in alfalfa and forty per cent in grains and other produce.

Assuming that the water is at the disposal of the farmer when crops need the water, assuming further that agricultural operations are such as to cause very little waste, and making no estimate whatever, or allowance, for the loss by seepage in the canals, laterals, but considering the duty only from the farm line, the boundary of the farm, the headgate, so to speak, at the boundary of the farm, I should say that, from the knowledge I have of the situation, the character of the soil, my observations of the crops, and general knowledge of the relationship between crops, soils, and water, if the

farmer has the equivalent of two acre feet he will probably have ample to produce what are ordinarily denominated first class crops.

This duty I fixed upon the land. In fact I am saying nothing whatever about the losses outside of the farm, but only to the water used by the farmer on the farm and the losses that belong to such application of water. The water applied to the farm by the farmer is used in three ways chiefly. Some of the water may, if too much water is applied, sink beyond reach of the plant roots; it may disappear in the country drainage. Another part is lost by evaporation from the surface of the soil. A third part is actually passed through the structure of the plant. We call that transpiration. The farmer can control the loss by deep percolation, the loss by seepage in a number of ways. The best means of control is to apply from time to time not too much water; if too much water is applied the water passes down through the soil into the country drainage and is lost; so that each irrigation should be measured and modified according to the depth of the soil and the character of the crop growing on it. Crops that permit surface cultivation or lands that carry crops that permit surface cultivation may, of course, be treated at the top by cultivation in such a way as to diminish evaporation. Transpiration, the amount of water lost by the plants through the plant itself, may be controlled by proper and careful tillage of the

soil, by keeping the soil fertile, by planting the right amount of seed, and in a good many other ways, wholly in the hands almost of the farmer. And may I add to that to make myself clear, that to bring water to a farm is only a part of reclamation by irrigation. The larger task remains and is in the hands of the farmer, whether he uses that water wisely or unwisely. In stating this duty I infer or wish to imply to you that the farmer is a farmer who believes in water economy and who farms well. I mean by that that he has laid out his farm in such a way as to make it a creditable irrigation plant; that he has his ditches and fields laid out in such a way that there is little loss of water by wastage; that water may be applied easily and well; that sources of waste in general are avoided. In making my estimate of two-acre feet as to the proper duty of water on these lands, I make allowance for percolation losses, with the understanding, however, that excessive amounts of water will not be applied at any one time to the soil, that reasonable agricultural amounts will be applied. I make a very small allowance for wastage. If the topography and other conditions really make it impracticable to irrigate without much wastage then something must be added to the two feet for wastage.

Water may be saved upon the farm in its application in a number of ways. For instance, a farmer should have a stream of sufficient size to be able

to cover his land in a reasonably short time. A very small head means that to cover the soil requires a longer time than when the head is larger, the workable head. Then too there must be a layout, the irrigation layout must be such as to enable the farmer himself to rotate water to advantage. He must be careful not to over-irrigate, that, is, to apply at any one time more water than the depth of soil on his farm can reasonably hold. If he applies more than that he does the land no good, injures the plant, in fact, and the water is lost in the country drainage.

I observed the farms on the Idaho Irrigation Company project during my visit last fall as I travelled through them and among them. It seemed to me, as I travelled over the project, that there were some very excellent farms, evidently managed by first class farmers. There were more cared for indifferently well. There were many that seemed to me to be in a strictly pioneer stage. And if you permit again a slight diversion—it is generally true that in the beginning of a project, before things are evened up and smoothed and made more complete, there is more water required than later on. But as a rule, I should say the project as I saw it has a great deal yet to have done on it before the farms will be counted as of first class character as to cultivation and operation.

#### CROSS EXAMINATION.

By MR. BISSELL.

I spent two days in the investigation of the project—in traveling over the project. I noticed in general the surface topography of the land. It is somewhat uneven. It varies a great deal as to being steep or otherwise. I noticed occasionally, the surface conditions. I observed out-croppings of rock. I made no test as to whether the soil is deep or shallow. I do not know of my own knowledge as to the condition of the substrata. I am in a general way familiar with the conditions of evaporation. I know approximately the average rainfall for the district. It is somewhere in the neighborhood of ten inches, between nine and ten or eleven, I am not sure what the average is. My impression is that it is very light during the irrigation season. I have the general knowledge concerning the losses by deep percolation that affects all such soils. I have no knowledge as to the loss in ditches, except the general knowledge that we all have who have studied the project. I have no knowledge of the exact losses by seepage in the ditches or farm laterals. I have the knowledge of conditions that affect deep percolation that we all have concerning such matters in soils of such character. In answering the question as to the duty of water, I have taken into consideration all these losses, but I made no allowance for the loss in the farmer's lateral outside of the farm, but my estimate of two acre feet includes the loss in the farmer's ditches on the farm. In my travels over the project, I observed that at va-

rious places, lava projected through the soil. Necessarily in a trip of the kind I took, I couldn't make any measurements to determine if as much as forty acres laid in one plot for regular irrigation without any projecting lava. It seems to me, as I remember the tract, that there were places where perhaps forty acres lay without interference by the projecting lava. I am not sure of that. I know nothing of the character of the substrata of my own knowledge. Of course, I have heard the testimony here and I inquired before I came here, and I have a genral knowldge of conditions in that vicinity.

The waste of water by deep percolation through shattered lava would depend primarily upon the depth of the soil. On a deep soil, one may apply more water at one irrigation than upon a shallow soil. In the irrigation of a tract where the soil varies from a few inches to four or five feet in depth, the loss by deep percolation would be greater than if the soil was of even depth of three or four feet, if the irrigator applied the same amount of water, that is, an amount of water that would satisfy the deep soil. Some of that would percolate through the shallow soil, but the first principle of irrigation practice on the Idaho Irrigation Company Project is to let the shallow soil be the determining factor in the application of water, and not the deep soil. I should hardly think that a farmer, once he learns of the depths of the soil in his field, would



attempt to treat a field part of which deep and part of which is shallow as one unit. He would take the shallow soil as one unit and the deep soil as another unit. That of course is something which this country will have to come to. I have no knowledge of such conditions as you state that the soil will be six inches deep at the point and perhaps one hundred feet away, will be five feet, and one hundred feet from that, will be six inches deep. If such conditions prevail, if the waves are very close together, so we have six-inch soil and two-foot soil within a short distance of each other, of course the thing would be very difficult to handle by the irrigator, but I have no knowledge of such condition existing. If such conditions do exist, it would take proportionately much greater care on the part of the irrigator, but not necessarily more water, except a shallow soil, other factors being the same, is more wasteful than deep soil. I made very little allowance for surface waste. I should say that in my own estimate, which I arrived at little by little until this day, I have not allowed more than perhaps three or four per cent of the water for waste. I have assumed that the part of it—that the farmer would work on a system so as to retain all the water given to him on the land under this duty. In arriving at my duty of two-acre feet, I have not presumed a soil of fairly regular depth. I couldn't do that. That is not necessary in establishing such a duty of water. The depth of the soil is a very

important factor, but my estimate to my mind is maximum under conditions of good farming, and would take care of a soil rather shallow, unless indeed the whole farm is of six-inch soil, then of course, it should not be found, but assuming that there may be soils two feet deep, I felt that this duty would suffice. If the soil were only about six inches deep, then it would be difficult to irrigate that soil without losing water by percolation. I meant to say that if the shallow soils of the farm are not much thinner than two feet, that this duty that I have suggested would be ample, even for such conditions. If the farmers of the project irrigate lands where the soil is only a few inches deep, more water would be required. But it is to be hoped—pardon the suggestion, that water will not be used on soils of that thickness. I should say that if there are soils on that project, as you have intimated, six inches deep, lying on solid lava rock, that with all the good land in the state of Idaho, it would be a very sad mistake to attempt farming on any quantity of such lands. As a matter of personal opinion, in my judgment it is very doubtful if the proper root development and proper water holding factors can play properly in a soil six inches in thickness. It would require eighteen inches, or two feet, I should say, to get results commensurate with the labor of caring for such soil, of planting the seed, caring for the watering, harvesting, etc. I am assuming that you mean such

a soil lying directly on the hard lava rock. Soil of less than eighteen inches or two feet in depth lying directly on top of a layer of lava substructure, should not be irrigated under good practice, if there is any better soil, deeper soil, near at hand. In fixing the duty of water at two acre feet, I don't care to commit myself to any depth of soil. I will be glad to state my reasons for coming to the conclusion I have.

The actual amount that can be passed through the structure of a plant by transpiration, with the exception of alfalfa perhaps, and only then a large crop of alfalfa, is always smaller and a great deal smaller than the two feet. That is my first principle, that we have provided that that amount of water, for practically the maximum amount of water that can be handled by a plant itself by transpiration, and with a margin for loss by seepage and by evaporation, sufficient to cover these losses, providing the farmer does his part. That is my first big reason, that we have a margin for losses, and at the same time taking care of the loss by transpiration, the use of water by transpiration. My second reason for arriving at this datum, this duty of water of two feet, is that my studies in my own state and elsewhere, and my study of the duty of water practices throughout the world, and I have examined literature of practically all the countries of the world, have convinced me that under the conditions that prevail here a duty of water of about

two feet on the farmer's lands, assuming that no abnormal conditions exist, is amply sufficient. And I may add by way of prophecy, so that the court may be edified thereby, that I believe the time will come, judging from other countries, that this duty will become smaller. But I have those two big reasons why I believe that that duty is sufficient—that irrespective of depths of soil and in general of kinds of crops grown. That duty of water will produce something under the maximum crops. A higher application of water will produce more crops, but unprofitably. I have considered the loss by evaporation, occasioned by the high velocity of winds on this tract. I think no man can tell what proportion of the two feet of water would be lost by evaporation. It depends on so many factors. The factors are the intensity of the wind—I will enumerate them as they come to me—the frequency of the winds, the average temperature, the kind of crop grown, whether it acts as a wind break or not; the size of the irrigation stream at each irrigation; the rapidity with which the water soaks into the soil; and other factors, that I am not prepared, without giving more thought to it, to give you. They are all variable, you notice.

THE COURT: A. Assuming the application to be made in a husbandlike way.

A. I should have to almost guess.

MR. BISSELL: Q. You took that factor into consideration in your estimate, didn't you, Doctor?

A. Yes, but that factor has run through all these experiments, and this factor has never been segregated in the thousands of experiments made.

Q. Give your best guess then, Doctor?

A. A man trained in science doesn't like to guess. It would be, if the treatment, if the agriculture were husbandlike, as the court suggests, that would eliminate one, and that would give us a control against the wind and the average temperature that would be very effective very large. It would give a control against loss by wind and sunshine, if the farmer will keep the top soil in good condition to prevent evaporation—if that is meant by husbandlike treatment. I should say that the evaporation might amount to four or five inches. It might even amount to six inches, say between nothing and six inches. That is very largely a guess, if I may say that to the court, because I don't know how to segregate that loss from the other losses.

Q. Now, Doctor, you say you took into consideration and made some small allowance for surface wastes; assuming that twenty-four inches was applied to the land, what would be your allowance for surface waste?

A. Not to exceed three or four inches maximum.

Q. Now, under ordinary irrigation practice there is always some loss by deep percolation, is there not?

A. There is.

Q. What would you say would be the loss under ordinary irrigation practice, practice in a husband-like manner, in inches, on the amount applied?

A. I have the same answer as I gave you as to the amount of evaporation. No man knows. No man pretends to know, if he is accurate in his statements. It depends entirely upon so many factors—the soil, the subsoil—but I should say that if husbandlike methods were in vogue, that the loss by deep percolation would be very small, because under such methods the farmer would apply only as much water at each irrigation as would, in accordance with his best knowledge, soak down to about the lower zone of the plant roots. True, as you say, a small quantity even then would escape, but it would be very small.

Q. Well, will you give us an estimate of that?

A. Well, I don't know; I can't make it.

Q. Well, you took that into consideration in making your estimate?

A. Precisely, because every experiment has included that and other factors, but they have not been segregated.

Q. Well, give us your best impression as to the loss by deep percolation.

A. I am unable to do that unless you will furnish me with the data, the factors that will absolutely limit the thing.

Q. Well, would you consider that the loss by deep percolation on the Idaho Irrigation Company's

tract would approximate that in general in southern Idaho?

A. That depends on the quantity of water applied. I tried to make clear, and I hope I haven't trespassed on your time by insisting so often upon that, that that depends upon the practice of the farmer. It may mean one thing under one condition and another thing under another.

THE COURT: Q. Under what you call good practice, Doctor. I fear you won't assist me very much unless you have a definite judgment for these various elements. If you haven't, of course, you can't give it. If you have, you can assist me.

A. I should say that under the same methods of husbandry, the losses by seepage on the tract in question would be about the same as elsewhere, assuming that the soils are about the same.

MR. BISSELL: Q. Now, Doctor, you have made most of your experiments in Cache Valley, have you not?

A. Yes, sir.

Q. What amounts did you allow for evaporation in Cache Valley?

A. The experiments in Cache Valley, as no doubt the previous witness explained before I came here to Boise, were made on specially prepared plots of ground, and differing quantities of water were applied, and the duty is the total—

Q. I am asking you, Doctor, about the seepage and evaporation.

A. Very well. I will answer in that way. In all those experiments no account was taken separately of the factors of evaporation and seepage.

My own work on the experiment farm at Logan, Utah, extended over a number of years and led me to the conclusion that less than two acre feet would amply suffice on the lands of Cache Valley, depending on the crop, the grain crops, about one-half or two-thirds less. The beet crop and potato crop a little more, and the alfalfa approximately two feet.

THE COURT: I want to ask you a few questions.

Q. If I rightly understand you, more frequent irrigations must be applied to shallow soils?

A. Yes.

Q. The more frequent the irrigations the greater loss by evaporations?

A. Yes, as the penalty of irrigating shallow soils.

Q. And where you have soils a part of which are deep and a part of which are shallow, you would have to use your judgment as to where you would have the greater loss, by deep irrigation, and thus avoid excessive evaporation—

A. Yes, you stand between the two possible losses.

Q. Here is a question that has been troubling me for some time. There has been some testimony here as to the amount of water that soils will



hold and the amount which is best for plant growth, etc. When you apply the water by surface irrigation, the top layer or soil or stratum becomes saturated, does it not?

A. In every case.

Q. Now, suppose you thoroughly saturate six inches, a layer of six inches of soil, upon the surface, what becomes of the water that is contained in that six inches—suppose you stop applying the water when you reach the point of saturation, what becomes of the water?

A. We have then two contending forces at work. A part of it evaporates, of course. Gravity acts also and pulls the water down until in many cases a six-inch irrigation would be found in twenty-four hours, on soils similar to that of the Richfield tract, to a depth of four or five or six or even more feet, depending upon the amount of water already in the soil, but those two things happen almost simultaneously, some evaporation from the wet top soil, and the downward pull of gravity carrying the water down to lower depths.

Q. What explanation have you of this rather common observation that if, say a comparatively heavy rainfall comes in the summer time in this country when it is very dry, there is nothing but mud down we will say in the road for three or four inches, and then you strike soil that is absolutely dry?

A. It is a very common experience that we are all familiar with, and a classic illustration of a principle in soil science, that if soils are allowed to dry out beyond a certain point, then instead of absorbing water readily and quickly, it takes some time before the water manages to wet the particles and reestablish the means whereby capillary attraction can operate. And that again leads to an agricultural practice. A farmer should never allow his soil to become too dry under irrigation because if he does the very thing you call our attention to occurs and the water is kept near the top.

Q. Then practically unless the irrigation is carried on in a perfect manner and the water is available just when it is needed the soil becomes too dry and you put on enough water to reach the saturation point for six inches, it doesn't go down any further, but the surplus is evaporation?

A. That may occur if the soil is too dry. It will always move downward, but not so readily, if the soil is dry. That is why I qualified my duty by saying providing the water is available when the farmer needs it.

Q. Under the system here water is delivered at the rate of and not in excess of the rate of a second foot for eighty acres. Necessarily if it is applied in a comparatively large head it couldn't be spread over all the tract at the same time. A number of days must necessarily intervene between the time of application to one part of the field and the

time of application to the other. That would mean that either water must be applied before it is needed on one part of the field or too late for the other part of the field.

A. Yes, assuming that the whole crop goes over the whole field.

A. I am taking say a field of alfalfa of forty acres.

A. Yes. In practice there the farmer should begin before the danger point of the lower half say has been reached. He should begin a little early at one end. It is after all a compromise.

Q. But all the time there is some waste water, as compared with an absolute standard of perfect application?

A. Yes, surely, always. That is why the actual duty of water is so much greater than the actual physiological needs of the plant.

Q. Now suppose it should be necessary for me to find from the evidence in this case that much of this land lies upon beds of lava more or less broken and very irregular in contour, and that in a general way the contour of the surface of the soil, not exactly, but generally, corresponds to the contour of the underlying lava, so that the higher places on the surface represent still greater irregularities under surface, on the contour of the surface of the lava, it would be necessary to carry the surface ditches on the farm around on these higher places—

A. Yes, on the higher points.

Q. Where the soil is thinner. And in irrigating from these ditches would you have an excessive loss, or would you, in the ditches?

A. It would tend to increase, I think, as the depth of soil decreased.

Q. As you distribute water from these surface ditches, whether it be by what is called flooding through contour ditches, or through corrugations, the water would be first applied to the land lying nearest the surface ditches, wouldn't it, necessarily?

A. Yes.

Q. And the greater amount of water would necessarily thus have to be applied to the thinner soils?

A. Under those conditions.

Q. I am not asking you to find those conditions, but to assume those conditions.

A. I understand.

Q. There would be a necessary wastage?

A. If the ditches ran over the shallower soil, the shallower soil would be the first to receive the water.

Q. How would you avoid the loss from deep percolation in cases of that kind? Assume, if I must find that—can you explain to me how—

A. I think the—instead of having the stream run in those ditches all the time, as very often occurs, make the period of application quick, so that the seepage would be reduced, time of seepage

would be reduced; and then of course the ultimate remedy is the cementing or making water-tight such dangerous places. That, ultimately, is the remedy. But even then under your assumption the soils lying nearest the ditch, being shallowest, would give us the greater seepage. The only way to overcome that, that I know of, would be to do the thing quickly.

Q. Those who have testified have almost invariably testified some of them with some scientific training—that it is impossible to apply water to much of the land out there rapidly, whether it be by the corrugation method or by the contour surface flooding method. In other words, the soil is loose—as some of them put it, it melts away like sugar, and if you apply a comparatively large stream it will wash.

A. Is it possible that the practice of irrigation there has established more or less traditionally fields too long, corrugations too short? By cutting those in two or three parts and having those two or three hundred feet instead of a thousand or twelve hundred feet, that would be overcome to a certain extent.

Q. But the shorter the corrugations the more surface ditches you would have?

A. Yes, but I think the loss there would be smaller than the corrugation waste.

Q. Some of the corrugations appear to be very short, only a hundred feet.

A. Of course, that isn't too long.

Q. But the only remedy you have to suggest in a case of that kind is to make the corrugations as short as possible?

A. As short as possible and work as quickly as possible, use a correspondingly greater head, of course not too great, not enough to wash away the soil or to embarrass the farmer. But that is, of course, the problem.

Q. Keeping the surface of the soil disturbed is practical only in certain stages of the crop.

A. Yes.

Q. And hardly practicable for alfalfa, excepting in a limited period?

A. Yes, in the spring and perhaps in the fall.

Q. So you couldn't prevent the drying process very much?

A. Yes. Alfalfa, however, has the advantage of being a crop that shades the ground pretty well after it gets a start.

Q. In your wide experience in conducting experiments and conducting them on such plats as were described by Dr. Harris—you conducted them on such plates as Dr. Harris described, largely?

A. Yes; but we also can check up against those smaller plats of which you speak. We went out into the state and secured from the farmers very large areas, that is, relatively large, two or three or four or five acres to a plat, and applied corresponding quantities of water, not so many vari-

ations, but enough to give us data sufficient to check up against our more or less laboratory findings on these smaller plats, and in a great majority of cases the control obtained was quite satisfactory.

Q. Now coming to these several elements—I have difficulty in understanding how you gentlemen—I speak of you gentlemen as the scientists—how you reach any definite conclusion as to a tract of this kind. Why couldn't you find out substantially the amount of evaporation upon a plat such as you conducted your experiments on? You could have, there?

A. Oh, yes, we did do it, but not in connection with the plat itself. We had a series of experiments dealing with evaporation of free water surfaces.

Q. Well, those would not be very helpful to me. Couldn't you in practical agricultural experiments determine almost precisely the amount of evaporation?

A. We can determine the amount of water that is abstracted from the soil by going into the air, but it is difficult to separate the quantity that goes through the plant and that which evaporates directly.

Q. Well, in those plats you can avoid any deep percolation, of course?

A. Yes, practically so.

Q. I say substantially?

A. Yes.

Q. You can avoid any waste from the surface?

A. We do that, yes.

Q. Or can you measure it?

A. Yes.

Q. Then you have only two other elements, evaporation and transpiration?

A. Yes.

Q. You say you can definitely determine the amount of transpiration?

A. But not in these experiments. We have, but not in these experiments. A number of investigators have worked on transpiration, by taking pots or other devices of that kind, covering them except for the part occupied by the plant, and then weighing them from time to time, under the assumption that direct evaporation from the soil has been wholly eliminated.

Q. However, it is done, you all agree that you can safely estimate the amount of transpiration?

A. Yes, we know approximately.

Q. Then if you apply a given amount of water to one of these plats, you deduct so much for transpiration, there is no deep soil percolation, there is no surface wastage from the soil, and all the rest must be evaporation?

A. Correct. That is the direct method, and has been used at times, and, as I tried to explain to counsel, that is one of the methods of arriving at this duty. I tried to determine actually how much



did go through the plant by transpiration. The remainder I charged up to other losses. It is an indirect method, but it is the best we can do, somewhat insecure.

Q. I wouldn't think it would be at all insecure if you can tell—if you can tell me definitely how much transpiration is, and there is no percolation and there is no surface wastage, where is the element of insecurity?

A. Because the transpiration ratio itself is an average. That is uncertain.

Q. So that the evaporation is uncertain because the transpiration is uncertain?

A. Yes. There are two factors that are difficult to segregate, but of course attempts have been made, but I feel uncertain about it.

Q. There are not available, are there, Dr. Widtsoe, the results of any practical farm experiments, and by that I mean taking farms as they go, under what you regard as a fairly high standard of practice, and observing those for a period of years, on rather a large scale?

A. Yes, I think there are such farms. Southern California has a number of farms that have been studied rather carefully for a number of years.

Q. Are the results reported?

A. The results are mostly, too often I am sorry to say, on the books of the company, but some have been reported in a more or less indefinite way, and I think perhaps the best results that were obtained

recently come from some of the investigations of the Department of Agriculture or Reclamation Projects, but the literature is not very sure when it comes to such matters.

W. L. GORTON, recalled as a witness for defendants, testified as follows:

DIRECT EXAMINATION.

By MR. WALTERS.

I have made calculations on the amount of water delivered on the experimental plots at Richfield in 1918, based upon the measurements made by myself and the measurements furnished by Mr. Dysart. I have examined defendant's Exhibit Number "72." The red graphs represent the amount of water that was applied to the different plots numbered from one to eight. Plot number one is represented by the red graph on the right, number two will be the second red graph on the right, and so on.

Fifty-nine inches was applied to tract No. 1; Tract No. 2, 53.40 inches; Tract No. 3, 53.61 inches; Tract No. 4, 41.17 inches; Tract No. 5, 36.06 inches; Tract No. 6, 28.87 inches; Tract No. 7, 23.76 inches; and tract No. 8, 17.82 inches. There were four separate tracts on the wheat experiment. Assuming the water measurements reported to me by Mr. Dysart to be correct, the amount of water applied to the wheat was as follows: Tract No. 1, 10.1 inches; Tract No. 2, 12.78 inches; Tract No. 3, 16.36 inches; Tract No. 4, 23.04 inches.

Referring to defendant's Exhibit Number "6," the red column in the upper left hand quarter of that Exhibit represents the amount of water applied to plot No. 1. They are inverse order from the other graph to which I have testified.

**CROSS EXAMINATION.**

By MR. BISSELL.

These computations were made in part by measurements which I took myself and in part from measurements furnished me by others. The persons who furnished me this information were employees of the Idaho Irrigation Company. I know that the measurements I testified to are correct, but I do not know as to the other measurements.

DON H. BARK, called as a witness on behalf of the defendants, testified as follows:

**DIRECT EXAMINATION.**

By MR. WALTERS.

I reside at Brooks, Alberta, 120 miles east of Calgary. I was formerly a resident of Idaho. I lived at Twin Falls in 1905 and 1906, on the Twin Falls South Side Tract, and from the spring of 1909 to the spring of 1915, I lived in Boise.

During my residence in Idaho, I was employed from 1909 on by the United States Department of Agriculture, and I had charge of a branch of their work called irrigation investigations in Idaho. I was employed by the Twin Falls Land & Water Company in the early days of that Project on their

demonstration farms. I had about eight or nine years of experience in Idaho in this line of work.

I am quite familiar with the majority of the canals in the upper Snake River Valley, around Blackfoot and Idaho Falls and Rexburg and Rigby, with the Portneuf-Marsh Valley project, at Downey, the American Falls project, around Aberdeen, the Oakley project, the Salmon River project, the Twin Falls South Side project, the Twin Falls North side project, the project of the Idaho Irrigation Company, and you might say most all of the other canals in this part of the state and Boise Valley. Some projects I necessarily spent more time on than others.

I am the author of a pamphlet introduced by plaintiffs as evidence in this case. That pamphlet fairly represents the extent of my activity in this line of work in Idaho. In the way of experimental stations, I had under me the Twin Falls Experiment Station, the Gooding Experiment Station, together with a lot of these tracts that we had on average farms throughout the State, if you could call them experiment stations. Those two so-called experiment stations were the only ones that I was actively connected with.

My acquaintance with the Idaho Irrigation Company Project began in the spring of 1909, at which time I was transferred to Idaho from Washington, D. C. At that time, an experiment station was established by our Department with the cooperation

of the Idaho State experiment station at Gooding, which is on the South Gooding tract of the Idaho Irrigation Company. From and after that time a considerable portion of my time was spent at Gooding and in the surrounding country. In addition to that, we had several experimental plots on the average farms scattered over that project, so that at various times in the years 1909, and 1910, and 1911, 1912, 1913 and 1914, I have been pretty well over that project. I would say that the surface and the topography, surface soil included, on the South Gooding tract and on the Richfield tract in my opinion, is quite similar to the best portions of, I will say, the South Side Twin Falls tract. The North Gooding tract in places on say half of its area, or not to exceed a half of its area, and the Dietrich tract, is more rolling in topography than the other two tracts referred to. The surface soil on those two tracts, so far as irrigation is concerned, is not greatly dissimilar from the others, with the exception that there is more sand on the Dietrich segregation than I would say the major portion of the South Idaho projects average.

Except in isolated instances, there is not much outcropping of rock on the irrigated portion of the South Gooding tract; and the same may be said of the Richfield tract. But on not to exceed fifty per cent of the North Gooding tract and the Dietrich tract there is considerable more outcropping of rock than would average we will say on the Salmon

River tract, or the South Side Twin Falls or even on the rest of this particular company's project. I can't see any difference even on the worst of it from portions of the North Side Twin Falls project. It is quite comparable. And then on the South Side Twin Falls Project around Buhl, west and north of Buhl, there is also considerable outcropping, which fairly resembles even the worst portions of the Idaho Irrigation Company's project.

I have made some study and observations of the underlying lava formation of the irrigated tracts mentioned. In connection with our irrigation investigation work in Idaho we endeavored to take into consideration and make a study of all factors which we felt might have a bearing in any way on the duty or use of water, including seepage and seepage investigation. And I had occasion at various times to study the underlying stratas, as well as could be done by an inspection of the areas where it outcropped, especially in the Salmon River canyon, and in the Snake River canyon, and in the Wood River Canyon, and while there is more surface lava exposed in the territory lying north of Shoshone, between the Big and Little Wood Rivers, than one ordinarily finds, I can't say that it is my opinion the lava rock is any different or any worse or any more porous on the Idaho Irrigation Company's project than it is any place else.

The general steepness of the Idaho Irrigation Company's project is about the same, or no steeper,

than a majority of the South Side Twin Falls project or the North Side. But it is slightly more rolling in places. But the general steepness isn't any greater. The Richfield tract in my opinion averages up in topography very favorably. It is no steeper or rougher than the general average of the best portion of the North Side Twin Falls project or the South Side. I would say that the general steepness and topography of the Richfield segregation is about the same as the best portion of the North Side or the whole of the South Side taken as a whole.

The South Gooding tract, I would put in the same category. If anything it is better. I consider the South Gooding to lay about as well if not better, than any similar area in Idaho.

I couldn't say that I made a study to determine the average depth of the soil on the Idaho Irrigation Company Project. I have taken numerous borings, of course, but the majority of them have been taken on the Gooding experiment station, and not over forty or fifty, I would say, on the other various parts of the project. I have made a study of transmission and seepage losses in canal systems. During this investigation that we have spoken of we made what we feel was a very complete investigation of seepage and transmission losses in all kinds of canals, varying from a very, very small, little ditch, to the canals as large as the main canal of the South Side Twin Falls.

At the Gooding experiment station, we carried on experiments each year on about half of the area of the Gooding station, for the purposes of determining the duty of water or water requirements of the various grains and alfalfa, clover and potatoes. On a total area of about twenty acres each year. And the way we did this would be to plant say three acres to alfalfa, and a similar area to other crops, though these areas varied. Sometimes we would have just one acre in an experiment, sometimes two and three and four, and these were subdivided into from three to five more or less equal parts. We would sometimes have a fifth acre in each part, and sometimes two-fifths, and sometimes a half acre; and we would put different amounts of water during the year on those plots, being careful to have all other factors uniform, that is, we would be careful to get a uniform stand of crop and to have them on a uniform slope, to have uniform previous preparation and cropping, so that we would eliminate all variable factors except that of water application. And we would put different amounts of water each year, during the year, on these different plots, which were measured very carefully. Almost invariably all of the water was applied during the daytime, for the purpose of being able to measure it accurately, and the yields were invariably weighed and the areas were measured up very, very carefully. And we in addition made moisture determinations of the amount of moisture in the



spring from winter precipitation or residual irrigation water and again throughout the season, and lastly in the fall, after harvest, and then we averaged up the results, for the purpose of getting at the duty of water for a soil and climate of that kind, by using all of the years for wheat, and all of the years for oats, and the same for alfalfa, because of the fact that we found that a larger number of experiments that way would tend to neutralize and offset the peculiarity that might exist in one experiment. We would pick out the yield that made the maximum crop in most cases as the one which had had the best amount of water applied to it, but in a case where, to illustrate, one and one-half acre feet had made forty-five bushels of wheat, and two acre feet or two and a half acre feet had only made forty-seven or forty-eight bushels of wheat we felt justified in arbitrarily eliminating this one where an abnormal and what seemed to us an unjustifiable increase of water was required to get a very small increase in grain. Averaging them up for the best duty, we arrived at approximately very closely one and a half acre feet of water as the best amount for grains, and two and a half acre feet for alfalfa, though the alfalfa had a greater tendency to increase in yield as more water was applied than did the grains.

The soil of the Gooding Experiment Station is somewhat different than parts of the project, due to the soil being somewhat deeper than it is on

other parts. But so far as texture is concerned, or water holding capacity, I never found it to be different than the soils of the other parts of the project, with the exception of possibly at Dietrich, where there is so much sand.

Based upon my study and investigation and assuming that sixty per cent of the land on the Idaho Irrigation Company project is in alfalfa and forty per cent in grains and other produce, and that the farmers headgates average a quarter of a mile away from the land, I have an opinion as to what would be the duty of water on the Idaho Irrigation Company Project, but I will say, Your Honor, that I have always figured that half of the project would ultimately be in alfalfa and the other half in these grains and other crops, so this makes a little different basis than I have usually figured. I can get at it by assuming that it was all in grain and other crops. Using an acre unit and assuming it all in alfalfa, it is my firm opinion that two and one-half acre feet actually retained on the land, such as we have on the Idaho Irrigation Company's project, is sufficient to raise a good, large profitable crop of alfalfa, three cuttings, but not a maximum crop. Two and a half retained on the land, that is, there might be a transmission loss in this quarter of a mile leading up to the land, and I would insist that I must have delivered enough so that I would waste a little, but I will get to that later. And with grains and orchards and a variety

of other crops which have the same water requirements, on the same basis, in my opinion they must have one and a half acre feet, making a duty for the two acres of two acre feet, that is on a fifty-fifty basis of these different kinds of crops.

Now, then, where you are considering your project as a whole, with sixty per cent of it in alfalfa and forty per cent in the crop which has a lesser water requirement, you can figure that out on a hundred acre basis. That is the metric system—it will work for a hundred or a thousand. Figuring this out on a hundred acre basis, sixty of which would be in alfalfa and forty in the grains, for this sixty acres they would have to have 150 acre feet; that is on a basis of two and a half feet per acre. And for the forty acres of grain, the acre foot and a half, would require sixty acre feet, or two hundred and ten acre feet, or a duty of 2.1 acre feet per acre delivered to the edge or corner of the land in question and retained on there. Not allowing for surface waste.

Now, there would be a transmission loss in this quarter of a mile of ditch leading to the farm, and that would vary with the size of the head they use, the bigger the head—for the sake of illustration, if they use two second feet for each farmer, he would have less percentage of loss than if he had one second foot. But taking into consideration the topography and what I think the practice will ultimately develop there into, I have set aside five per cent for

loss in that quarter of a mile of ditch; I think that is a little more than ample, and I am figuring that on a basis of fifteen per cent per mile, Your Honor, which would really provide for loss in a third of a mile of ditch, so this 2.1 acre feet would be ninety-five per cent of the amount that was delivered a quarter of a mile away. This would require a delivery of 2.21 acre feet per acre a quarter of a mile away. Now for the surface waste—in my experience and observation throughout the state, and furthermore based on my experiments, all of which, except at the Gooding experiment station, were on ordinary farmers' land, some steep and some flat, and all manner of conditions being represented, I have come to the conclusion that good practice would require that the farmer be delivered enough so that he could waste twelve and one-half per cent, or one-eighth of the amount delivered to him. Now in times of very shy water, or if he was paying for it like on a pumping plant, sometimes I find that they get along without any waste. It "can be did." But in actual practice, even with good practice and pretty good preparations, if I had a farm, I would want just that much of a factor of safety there so that I could waste it on that steep land; and that would be twelve and a half per cent in addition to this 2.21 and that is based, according to my figures, on the amount retained; that is, he wastes twelve and a half per cent of the amount he retains; that would be one-eighth of it. That

is a delivery of 2.48 acre feet at the farmers' head-gate. But I want to say, if you will permit me, that somebody is going to pick up that twelve and a half per cent, and if he picks it up he won't need all of it, the other fellow won't need it.

Q. Having in mind the topography and general conditions on the Idaho Irrigation Company project, what can you say to the court as to the re-using of the twelve and a half per cent waste by the farmers below, as a likelihood?

A. In my experience and observation, that is about all going to be used, by the farmers below. A portion of it will get back into the company's laterals, and they can measure it out to some other fellow again, or that portion that doesn't get back into the company's laterals will be taken across the fence and used by the neighbor without any account being taken of it as having gotten it from the company. I would say that eighty per cent of that amount wasted will be picked up and used by somebody.

I have never measured on the Idaho Irrigation Company project to find out how much they did pick up of this waste water, but I have measured on the South Side Twin Falls, and found that there was a large part of the waste water picked up and re-used again. Measuring a coulee for several miles that kept picking up and picking up, there would be a lot more at the lower end, where they would finally divert it again in some canal than

there would be at the upper end. Now I can't see any reason why, to a large extent, that same proposition won't be done on the Idaho Irrigation Company project.

Assuming the ditches from the farmer's head-gate to the land averages a quarter of a mile in length, the loss by seepage in such ditches would be five per cent. I find that these small canals lose about fifteen per cent per mile, some more and some less, but that is safe and conservative. As to deep percolation, my investigations have shown me that so far as all practical purposes are concerned any irrigation water that is applied to the soil and made to percolate beyond a depth of four feet, whether it be in deep soil or in shallow soil, is lost to the use of the plant. In other words, if you have a soil of unlimited depth, you put enough water on so that it goes down beyond four feet, you are not going to get any value of it anyhow, and in the case of soil only four feet deep, underlaid by lava rock, why, some of it would get into the lava rock, and it would be gone just as effectively, so far as the crops are concerned, as if it had gone down into those deeper reaches of soil. The aim of the irrigator should be to apply less heavy irrigations per application, and not waste so much by deep percolation. That is quite a loss in any district, where they put their water on sometimes and go off and leave it and keep it running for twice too long a time on the land, it may not be running off so much

at the lower end, and it is going down even in the deep soil, and is utterly being lost to the use of the plant. Unquestionably there is detriment to the soil itself by this practice.

The water percolating through that soil in such excess quantities dissolves out the plant foods and they are carried on down into the soils below or into the lava rock, where every year, with these abnormal applications going through the soil, your soil is actually getting poorer in plant food and more infertile. There is quite a loss from that reason.

I would say that the practice of running water so far between ditches is wasteful in any district, even though it has deep soil, but if it has soil much shallower than four feet there is all the more reason for having these head ditches, as I call them close together. Then as you turn the water out from the head ditch it flows down hill toward the next ditch, you get more uniform wetting than if you were running it twice as far. Generally speaking, they would want to have their ditches closer together on this assumed shallow soil than on the soil that was four or five feet deep. There is another factor that demands close ditches and that is an ability to pick up your own waste water and use it over and over again. An ordinary forty-acre tract, there would be, with good practice, four or five cross ditches running across it at more or less regular intervals, and the waste water from



the one strip would be caught in the next ditch below and checked up and used out, and in that way a man would not waste anything off of his farm except on the outer edges of the lower side.

By this method of irrigation, and picking up the waste water, the result would be to avoid getting too much water on the lowland, and in a country that is rolling, the problem that confronts the irrigator, is to keep the water from saturating the lowlands. It requires more labor to irrigate this rolling land, that is, one man can't handle quite so much because of the fact that he has to be an expert irrigator and pay a little more attention to that water.

I had quite a lot of information as to the average seasonal requirements for irrigation in South Central Idaho. In this broad investigation covering other lands than the Gooding experiment station, we included the measurement of the water used by a large number of typical canals scattered pretty well over the state. I may say that these canals, many of them, had old water rights, and they could get about all the water they wanted, and when they wanted it, and there was no restriction on our part as to how much they would use or when they used it. In fact, a majority of the people perhaps didn't realize that we were measuring it at all. We had a rating station at the head of the canals, and just measured the total amount taken out by the canal right straight through the



season, from the time it was turned on in the spring until the water was turned out in the fall. And I can give you that from this report.

On page 115, which is a table, which contains the amount of water diverted for 1911 and 1912, by the Riverdale canal, Farmers' Cooperative canal, Farmers' Union, Settlers, and the Boise Valley, and Eureka, and the Pioneer—there are two canals in the upper Snake River Valley for 1912, the Randall and the Clark and Edwards, the South Side Twin Falls canal for 1912 and 1913. This represented a total area for the two years of 387,470.85 acres. For the first half of April, that is—using the entire amount diverted during the season as 100 per cent, for the first one-half of April they diverted 1.49 per cent, for the second half of April, 4.08 per cent; for the month of May, 15.6 per cent; for the month of June, 22.4 per cent; July, 22.83 per cent; August, 16.5 per cent; September, 12.43 per cent; the first half of October 3.71 per cent; the second half of October, .93 per cent. Now that represents the use of water by the canals, a large part of which was for domestic purposes and wasn't actually used on the land. And to bolster up that table and show the actual use on the land I made a summation in this same report, which occurs on page 109, showing the distribution of water throughout the season for half alfalfa, and average of half alfalfa and half grain for all of those experiments. They used no water whatever in the

first half of April. They used 3.88 per cent during the second half of April; 11.23 per cent during May; 31.95 per cent during June; 26.01 per cent during July; 25.54 per cent during August; and only 1.39 per cent during the first half of September, and nothing during the last half of September, nor during the month of October.

Paragraph 29 on page 125 of this pamphlet contains other information upon this subject.

#### CROSS EXAMINATION.

By MR. BISSELL.

I said that, taking all of the experiments into consideration on the farmers' fields which I have carried on, there was no water used during the last half of September. I don't know that in the vicinity of Gooding, it is necessary for the farmers to irrigate during the last half of September to get a third crop of alfalfa. I have seen some water applied during the last half of September. I don't know that a greater percentage of them do. I know that some of them do. My statement that no water was used is not incorrect. I based it upon the experiments that were carried on in this book. My experience and observation throughout the State showed me that there was almost no water used after the middle of September. They irrigate their alfalfa the latter part of August or the first part of September, and then they have got to let it dry out so that they can cut it and get it cured and off of the ground before freezeup. They

cut their alfalfa usually during September, sometimes, as late as the first of October. It is not the usual practice to irrigate the ground after the third cutting for the benefit of the pasture and for the benefit of the crop in the ensuing year. Based on a good many years of traveling about this state and observing all kinds of ground, I would say that it isn't the usual practice to irrigate it after the third crop is off. The evaporation is very low at that stage of the game, and this irrigation that has been put on prior to the third crop being taken off lasts longer than it would early in the season.

It is good practice and is beneficial to the crop to irrigate the ground after the third cutting if it needs it, but I don't think it usually needs it.

I have put in seven or eight years investigating or experimenting in Southern Idaho on the duty of water, and in the spring, the farmers should start to irrigate pretty strong about the first of May. Previous to that time the ground is pretty cold, and this water put on there will—I might say that it takes head as well as moisture to make crops grow, and if you apply one and sacrifice the other you don't accomplish the desired end, and I have always found, and can find plenty of farmers to agree with me, that putting the cold water on so early in the season doesn't get them the same results that irrigating this alfalfa about the first of May does.

This book or pamphlet which I got out was largely for the guidance of farmers, engineers, and others. I made the statement and still stand on it, in the third paragraph of page 154, as follows: "Alfalfa requires water from early spring until late fall, as do the clovers and pasture grasses, and has been found to require nearly twice as much water during the irrigation season as the spring or winter grains, which require it for but a comparatively short season. Alfalfa has shown a decided tendency throughout the investigation to produce the most crop where the most water has been applied. It has been made plain that water should never be left standing on alfalfa more than an hour or two if the best results are to be obtained. No more should be applied at an irrigation than the soil will readily absorb. Where the above method of irrigating alfalfa is followed it has been found almost impossible to reduce the yield by applying too much water. The yield produced, however, is in but few cases proportional to the amount of water applied, and it is doubted whether or not it will ever be found feasible to apply more than three acre feet per acre to alfalfa or pasture on the medium clay loam soils." That statement is substantially true. I believe, as I said, that that is true, and still stand on it. I don't say that the three acre feet correctly states the duty for alfalfa. I still mean exactly what it says in that paragraph.

In the course of my long experience at Gooding, I became quite familiar with the surface topography and with the outcrops of lava rock in that vicinity. One would strike lava outcroppings within a quarter of a mile north of the Lincoln Inn in Gooding. Going west, from the Lincoln Inn, it wouldn't be very far, not much further than 200 yards. There is a big bunch of lava rock nearly east of town, just a few hundred yards at most. I haven't got a map of every blooming one of those little outcropping lavas. There is plenty of outcropping of lava in the townsite. It is a pretty big townsite. I wouldn't say there are not two outcroppings of lava within forty rods going west on the road to the experiment farm. I wouldn't say you can travel along either road to the experiment station for eighty rods without going over an outcrop of lava. There is plenty of them there. That is not in the best section of the tract. You can go south from the experiment farm and around south of that hill, and go west and then east, and you couldn't find a rock to throw at a rabbit, in a great many places; it is especially free from rocks. I haven't forgotten about the topography there, but I can't tell you within a few rods where all these outcroppings are. I was there last in the month of October last year. I was at Richfield, Dietrich, Shoshone, and Gooding and drove over a good many of the roads on all four of the tracts, with a car. It was thought at the time that this case might come

up and I wanted to refresh my memory somewhat on what that country looked like and the improvement that had been done there, and the amount of crop planted, and the way the land was prepared, in the last five years, since my absence.

I think a man could go due south of the experiment farm without stumbling over much lava. Probably on half or at least a third of the forties there are some lava outcroppings. Going east, I think you cross a lava reef within eighty rods. A little north an deast of there, this big pond that the Governor was telling about. I have been over that project a thousand times, I guess, but I can't tell where all these lava outcroppings are. I insist I have a very good general idea of especially that South Gooding tract, but I can't tell you just how far it is between those outcroppings or how many there are.

Wherever I have found the lava substrata, it appears to be broken or shattered. All lava substrata that I have ever seen is. In the part between Big and Little Wood River, north of Shoshone, outside of the project, I know there are a great many crevices and caves. I have no reason to believe otherwise than that the Idaho Irrigation project is underlaid with the same general character of lava as that which outcrops. The character of the soil and of the subsoil is similar to the South Side Twin Falls except that there is more sandy land on the Idaho Irrigation segregation than there is on the South Side Twin Falls.

In my pamphlet on page 169, I say that the seepage and evaporation losses in the main canal of the project may range from ten to fifty per cent, and that the averages for most projects is fully thirty per cent of the water diverted. I think there is the average seepage and evaporation in the main canal of the Idaho Irrigation Company project. You see all of these seepage investigations were made more or less in lava rock country. I said in the pamphlet that the seepage and evaporation losses in the internal lateral system of the project range from five to fifteen per cent with an average of seven and one-half per cent. That average holds good on the Idaho Irrigation Company Project so far as I can determine.

If the canals were carelessly maintained and they allowed the water to run into some of these cracks and crevices that have been found to develop, and not stopped up, that would increase this over the average loss. I don't think that the average loss on the Idaho Irrigation Company's project is in excess of the average loss mentioned by me in the pamphlet. It might be if it were carelessly maintained. I would say that the deep percolation losses on the farms on the Idaho Irrigation project will average twenty per cent. Regarding the loss by surface waste, I would say that the waste should not be more on the Idaho Irrigation project than twelve per cent, the average specified in the pamphlet, because the farms are so fixed that they



can make these ditches to catch up this waste. It could be cut down lower than that.

The fifth item of loss discussed in the pamphlet, is the evaporation loss from the farms which ranges from six to twelve inches or from ten to fifty per cent of the amount delivered. I think those averages of loss discussed in the pamphlet will hold good on the Idaho Irrigation Company clear through. I want to qualify that in answering it, that those losses to a certain extent compensate one another, that is, they are variable. You might not have all of those losses on any one farm or any one segregation, of that same amount. Some might be a little bit more and some a little less, but generally speaking that would be the average, in my opinion.

I think the soil in the Gooding experiment farm averages deeper than the average soil on the Idaho Irrigation Company's segregation, and the surface is smoother, and there is a lot of land on the project that is steeper, but half or more of the project would have about the same rapidity of slope. I think that tract was picked out for the experiment station because it was as near an ideal plot as could be located within the segregation. There might have been more ideal ones, but that suited us, because of its location and the way it could be segregated into smaller plates, and ability to drill holes in the soil six feet deep. I wouldn't



say it was the most ideal, but it was picked because it suited us; it was good.

Our irrigation experiments were conducted as daylight irrigation experiments very largely. We very seldom ran any water at nights. We most always had an adequate force of help. A farmer under practical conditions wouldn't get as large a yield. Speaking specifically and only of the experiment farm, I would agree that the farmer under practical conditions could not obtain the same results that we obtained on the experiment farm. I did not use the figures that I derived from the experiment farm in fixing my duty of water on this project. I have used them in connection with the broader investigation which was carried on on the farmers' own land, own fields, prepared in no way especially for the investigation. Only a portion of the figures in the report are from the Gooding experiment station. There is none from the Twin Falls experiment station in there, very largely from the farmers' own fields, some of them from Gooding and Twin Falls and Richfield and Buhl, and some from Boise Valley and Idaho Falls. To obtain the results which I find in my experiments at the Gooding station I don't think there are any items of correction that would have to be made.

The South Gooding tract is similar in water requirements to the Twin Falls South Side Tract, and barring a few outcroppings of rock in purely isolated cases, I would say it was similar in to-

pography to the west end of the South Side Twin Falls tract. The soil on the South Side Twin Falls is called clay loam. The soil on the Idaho project is not sand or blow sand, it is called a light sandy loam, some of it even tends toward a clay loam. Some of the heaviest soils I have ever seen will drift very badly when dry and dusty.

RE-DIRECT EXAMINATION.

By MR. WALTERS.

Referring to page 169 of my report about which Mr. Bissell interrogated me, I did not use the table set out on that page, particularly in computing the duty of water for the Idaho Irrigation project at 2.48. That contains a lot of losses that you haven't asked me about in the canal system. I included deep percolation, surface waste and evaporation and loss in the lateral leading to the farm, and transpiration. These are all taken care of in this 2.48 acre feet per acre.

BY THE COURT:

Q. Will you analyze for me again just briefly the elements that entered into your ultimate result. How much did you allow for transpiration?

A. Your Honor, all of these experiments that I have.

Q. No, I don't care for the experiments. I want to know now, when you come to make your computation, how much did you allow for that purpose? You just stated to counsel that you made allowance for that.

A. I didn't separate the evaporation from the surface of the soil or the crop transpiration or the deep percolation. This two acre feet actually delivered to the corner of the land and retained on the—

Q. Well, can you do it for me?

A. I could make some very close estimates of that, sir, from other experimental data that I have.

Q. Well, how do you get at your one and a half acre foot for grain?

A. From a large series of experiments, where three different amounts of water were applied to grain, and then took the one that made the maximum yield and averaged up all of them, which gave me that acre foot and a half. The transpiration and evaporation from the surface directly of the soil, and the deep percolation, were all in that acre foot and a half, in actual practice, with these experiments, subject to the normal wind and the humidity and the rainfall and the deep percolation that they usually get in actual practice. It is all in there.

Q. Yes, but in this report here you have undertaken to analyze and give averages. Now, why can't you do it on this tract? In other words, you have given separately what is the amount of evaporation to be expected. Why can't you give me the evaporation you expect on this tract?

A. Your Honor, I didn't arrive at it in that way. I was basing it on my experiments just as

I had carried them on. I have made supplemental experiments at various times which have had to do with pots and tanks, where you have got control of all but one factor, and that can't be done out in the open field, to find out readily how much deeper percolation and how much evaporation and how much transpires from the same field, all at once. I don't know how that could be done. I had to do it in pots and in big galvanized iron tanks. I have done a lot of that stuff. But I can allow only the one thing at a time.

Q. Do you mean to say that in your mind, in making this estimate of the water required there, you haven't made a definite allowance for transpiration?

A. No, sir.

Q. And you haven't made any definite allowance for evaporation?

A. No, sir. That is all automatically taken care of by these experiments carried on.

Q. And you haven't made any allowance for deep percolation?

A. That is all in that acre foot and a half.

Q. But I mean in your mind you haven't?

A. No, sir.

Q. And you haven't any definite allowance for surface runoff?

A. Yes. You see, I arrived at the 2.1 acre feet, allowing twelve and a half per cent then to runoff.

Q. Why do you specify that if you don't specify deep percolation?

A. Because the surface waste has always been measurable along with the experiments that I carried on on the farmers' fields, while the deep percolation and the evaporation and the transpiration couldn't be gotten at separately and still grow your crop on the farmers' fields. They couldn't be segregated. I know of no way, and never have found a man who could show me any way to segregate those three factors and still have your crop growing out in the field without disturbing it, and get normal results.

Q. Did you in the Salmon River case give an estimate of the amount to be expected for deep percolation?

A. I don't think I did, sir.

Q. Did you make any comparison between this tract and the Salmon River tract?

A. Yes, sir.

Q. That tract has a water table?

A. No, sir. It has a rather more impervious soil, a shallower soil, with this tight hardpan close to the surface, and requiring—

Q. Why do you say it has a shallower soil? I understood you to say you hadn't investigated the depth of the soil on this tract.

A. The Richfield tract?

Q. Yes.

A. I haven't, very thoroughly. I have taken perhaps twenty or twenty-five borings over the tract, and of my own knowledge, I haven't taken many more, outside of the Gooding experiment station, about these twenty-five. I am basing my estimate of the average depth on other people's figures.

Q. What figures did you take then?

A. 3.83, that Professor Thom testifies to as the average depth of the tract.

Q. In your answer here you are assuming that the depth of the soil would average 3.83?

A. Yes, sir.

Q. In your estimate of the amount of water—

A. Yes, sir. I have had to assume some depth.

Q. You say there is no water table on the South Gooding tract?

A. Up in the vicinity of Rogerson they used to find wells pretty close, but what I think of as a water table is right close to the surface. Do you mean ability to get wells at a considerable depth?

Q. Oh, no. I mean where the water from deep percolation gradually finds its way to the surface somewhere upon the tract sooner or later. In other words, it is held in such a way that it doesn't waste away beyond being recaptured.

A. I think there will be a water table on the Salmon, but to my knowledge there wasn't any five years ago. It will be held up by this hardpan. There is a very calcareous impervious hardpan

quite close to the surface on that Salmon project, which sort of limits the depth of that soil. The stuff that is below it isn't of much value.

Q. How do you account for the fact, if it be a fact, that they can't retain water in the ponds there?

A. On the Salmon tract?

Q. You are speaking of the Salmon tract. Yes, the Salmon. You say a water table will be developed on the Salmon?

A. It will be developed on the Salmon tract, but not on the Idaho Irrigation Company tract.

Q. In that respect the tract differs from all of the other tracts?

A. I don't think it differs from the North Side Twin Falls tract.

Q. But it does from the South Side?

A. I think so.

Q. Well, you know as a matter of fact that they have had to put in a drainage system there?

A. Yes. The lava rock seems to be filled up at the Twin Falls clear to the top, and bubbling out of the top. And a few years back it was four hundred feet to water.

Q. What is the effect, if any, upon the amount of evaporation of a great deal of rock of different sizes in what you might call the surface soil? In order that the question may appear to you to be in the concrete—some of the witnesses here testified that upon portions of this project they have

gathered rock to make stone fences, made piles of rocks, and there are still a great many there, and the finer rock left on the soil—does that affect the evaporation at all?

A. Well, I can't think that it does. No water evaporates from the rocks themselves, because they can't absorb any. It will be a little higher on the sunny side of the rock than in the shade on the other side. I wouldn't say that the presence of those rocks had any effect on surface evaporation.

Q. You said that after moisture got deeper than four feet from the surface it was lost to plant growth anyway?

A. That would be a little bit in error with deep-rooted alfalfa.

Q. Yes—putting that aside. Suppose you have soil ten feet in depth, and you put on just enough water to reach a depth of ten feet, what becomes of the water that penetrates to a depth greater than four feet?

A. I think from soil borings I have made in supplementary investigations this keeps on going down, anything below the four feet, it gets below four feet, pretty much, as you irrigate the next time it is added to and keeps going down rather than coming back, as some people insist, by capillary attraction. The tendency of gravity is to pull it down and it can't get back. I have probably made a good many thousand soil moisture determinations all over this country, and I am still making them,



and I can't find that this water that gets below four feet does come back to the surface by capillary attraction. It seems to keep going down.

Q. What would become of it if the soil were ten feet deep, underlaid with a solid sheet of lava or other rock?

A. They would mighty quick have to put in a drainage system; they would have a water table.

Q. You think that if that underlying stratum of six feet of soil, the six feet below the four feet, had only five per cent of moisture in it, that would go down instead of come up?

A. No! Your Honor. Five per cent of moisture in an ordinary soil is an awful small amount. The dust of the road has about five per cent.

Q. Well, take fifteen per cent.

A. Yes, sir. I think that stuff that gets below four feet can only be pulled up by plant roots, and not by capillary attraction.

C. C. THOM, recalled as a witness on behalf of defendants testified as follows:

DIRECT EXAMINATION.

By MR. WALTERS.

I personally made 253 soil borings on the Idaho Irrigation Company project. The soil has a gentle roll, with a slope to the southwest. That would not mean that each farm would have a slope to the southwest, but the general tendency is with the flow of the Big Wood and Little Wood rivers, which is to the southwest. Coming in particular—the

Richfield tract is not possibly so rolling as some of the other tracts, but it has a gentle slope in four directions. There is a high place, or a place above the water line on this Richfield tract, and it slopes from that in all directions. It is watered all the way around this hill. It is somewhat undulating, but not nearly so much so as the Dietrich tract, which is more undulating. Part of that undulation is due to the fact that some of that soil has blown and is characteristic of blow soils. The South Gooding tract is again somewhat rolling, but is not so broken in topography as the Dietrich tract. The North Gooding tract is possibly the most broken of any of the four tracts. There is more undulation to the surface, more outcropping of the underlying strata of rock. It is very similar to the Twin Falls North Side project, especially the greater portion of the Twin Falls. We find that along the Snake River canyon we have the blow sands on the project, which are very characteristic both of the North Side Twin Falls project and especially the Dietrich tract of this project.

I have made some examinations as to what would be the proper duty of water on this project. The results of my investigations on this project point to a duty of water for grain of 15 acre inches. For alfalfa, of 33 acre inches, from 30 to 33 acre inches. I make the distinction in the difference for alfalfa in the fact that some of the more porous soils of the Dietrich tract will possibly get away more from

the farmer than anything else. I am including all waste in this and all possible losses. Assuming the project to be sixty per cent in alfalfa and forty per cent in grains and other crops, that would make the duty on the farm approximately 26 acre inches. Assuming the project to be fifty per cent alfalfa and fifty per cent grains, that would give a duty of two acre feet.

Leaving aside the result of any experiments which I did not make personally and testifying from my own general knowledge with reference to the losses accounted for and how this duty was arrived at, I will say that from the results of my investigation work while connected with the department of agriculture in experiment station work, I have found that with wheat I have results which are still being carried on at Pullman and will be published I believe shortly, but I take them from my notes. I am not now connected with the institution. That to produce 44 bushels of wheat we required 10.3 inches for transpiration through the plant; 3.36 for evaporation from the soil; and 2.21 for deep percolation. Now that would be the basis of my contention that from—as I gave them to you—15 acre inches would be sufficient to produce good crops of wheat—

The transpiration was ten and a fraction inches. Three and a half inches approximately for evaporation, and practically two inches for deep percolation. Now this work was not done in the field, but

it was done in large iron tanks, a depth of four feet of soil being in each tank. The water was applied to the surface and weighings made at the initial point of the experiment and again at the finish, or when the crop was cut and harvested, and these differences were noted, because we had control tanks showing the amount of evaporation loss without any crop on it, and then we had the water which percolated through that soil caught in a tank below the first one. These tanks, I may say, were set in the soil of an open field, so that the top of the tank was level with the surface of the soil, and were set right in an ordinary field. The oats were growing right around the tanks just the same as though they had been part of the field. That gave us as nearly a true condition of transpiration and evaporation and loss by these two factors especially as we could hope to get in a controlled experiment of that kind. We had experiments of that kind with alfalfa in the same tanks, but in this respect I have to say that those experiments were not the basis of my conclusion here, because we found that alfalfa, for some reason or other, the first year of the experiment, was not a success. I think it was due to the seed we used, and I did not have sufficient data when I left there to base a conclusion. I base my conclusion upon the observation of other experiments and good practice generally, when I say that 33 acre inches is ample for alfalfa.

With reference to the underlying lava substrata and its effect upon farming operations, I will say that in these soil borings which were made we generally found the surface of the lava rock underlaid with a white layer or strata. That is a common experience all over this country. This layer is more or less impervious to water. It is a layer of carbonate material which has percolated down and been left there. Again we found that the surface of the lava was cracked and broken and that the first foot or two feet, as the case might be, would be filled with soil between the broken particles. In other words, the soil did not cut off directly from the rock, as you would say, in cutting off from a perfectly level or smooth surface, like the top of a table or something of that kind. Again we found that in observing the excavation for buildings, for cellars, and things of that kind, that where the dip could be observed the rock underneath, it was usually very abrupt. That could be seen from the indication that on one side of this cellar sometimes we would have a depth of two feet of soil to the rock, where on the opposite side they could get down eight feet, in a distance of from ten to twenty feet, as the case may be. And in taking borings with the special idea of finding how the outcrops were located, we found that, especially on the Dietrich tract, most of these rock outcrops were very abrupt. If we got a rod or two away from the outcrop we would find three feet or more of soil. And this is

true of the great percentage of rock outcroppings on all the tracts. I am not saying that they are all that way. Some we would find where the soil simply gradually attained a greater depth, and we followed some of them out a distance of fifteen or twenty rods before we got a sufficient depth of soil for good agricultural practice.

The only attempt at trying to farm soil as little in depth as a foot above the lava rock would be where they were trying to grow alfalfa. You would find an attempt at seeding alfalfa as close up to the rock as they could possibly get, though I would say that the alfalfa did not grow successfully, and would not grow successfully in soil as shallow as that. I would like two or more feet as the minimum depth of soil for the proper growing of alfalfa. I was on this tract in the years 1918 and 1919 at intervals during the irrigation season, and as to observing the wastage of water from farms, I will say that I observed considerable water at times getting away from farms, particularly from the alfalfa fields, and in particular when I would investigate this loss I would find that such farm was poorly prepared; it had not been properly leveled or properly graded. There would be spots in such farm that the water could not reach because the knolls had not been graded down so the water could get over it. And invariably the large wastes came from farms where the corrugations were of good length, in my opinion much too long.

As to the preparation of the farms for the raising of crops and irrigation, I will say that some of the farms are now approaching a very good condition. The grading is much better than on other farms. But this condition, or best condition, and by that I do not mean an ideal condition at all, is not yet approached on any great percentage of the farms. The majority of the farms still need a great deal of extra preparation in order that the water may be best distributed and applied to the land. As soon as all of the land becomes under cultivation, it will allow the farmers to change some of their head ditches, which they do not now wish to change, because it would lead them too far from the land that is in cultivation, but as soon as the farmer can get all his farm in cultivation these farms will no doubt be put in a much better state of cultivation. Some of the newer farms, more recently broken farms, are still in what I consider a very poor state of preparation for irrigation purposes.

As to the necessity for using water for agricultural purposes in April and October, I will base my answer upon my knowledge of the length of the growing season in that country, which is short, being approximately 100 days. I take these from the United States Weather Bureau records. That being the case, and knowing the dates of the first killing frosts or the last killing frosts in the spring and again in the autumn, I would say there is very little

need for irrigation in the average year in April and October.

### CROSS-EXAMINATION.

By MR. BISSELL.

The experiments made at Pullman, Washington, on the duty of water for wheat are not altogether the basis of my opinion as to the duty of water, but they are the foundation for it. The tanks were set out in the middle of an oat field and the loss by transpiration through the plant was ten and a fraction inches. The loss from evaporation was 3.36 inches. The loss from deep percolation was 2.21 inches. There was a bottom in the tank, but it had a drainage tube in it. That made a total loss of 15.87 inches. The water was applied to the surface at different times in the season as we found it needed it, by weighing the tank. The tank was so protected that rainfall could not get to it. There was a glass roof over the top, about six feet above, so that there was free circulation of air underneath. The runoff was 2.21 inches. That would be deep percolation. And there was something like 22 per cent of moisture in the soil when we began the tests. That was the condition for best growth. I take that absolutely from my memory. I haven't the figures here, but knowing that soil as I did, it was about 22 per cent. That would be 66 per cent of its capillary capacity.

Q. Then you figure the duty of water on the Idaho Irrigation Company's project under ordi-



nary farming conditions at .87 of an inch less than you found was actually required under ideal experiment conditions under glass.

A. I do not call them ideal at all, because there were factors there just the same as there are here that enter into the consideration. I said that was part of my set up. That is not all the basis upon which I bring this conclusion. I think I so stated before. I said I included the experiments in this country with which I was familiar.

M. R. KAYS, recalled as a witness on behalf of defendants testified as follows:

**DIRECT EXAMINATION.**

By MR. WALTERS.

I was educated as a civil engineer, and have been following irrigation engineering for about sixteen years. I was employed six years by the United States Reclamation Service in Arizona, Wyoming and Nebraska; and the last ten years on the project of the Idaho Irrigation Company in Idaho.

Since 1912, when I became responsible for the operation of the project, the first two or three years there was a very small amount of land in cultivation and no use for all the water that was available. At a time when the farms were in a very crude condition, at a time when experience demonstrated that new soil needed an abundance of water, and when the farmers were not equipped to handle it and use it beneficially and economically, there was no particular regard, water was dis-

tributed without any particular regard to the contract rights of the farmer, the amount that he was entitled to under the contract. Whenever there was an excess, which was generally throughout those earlier years, the practice was to give him substantially the amount of water that he thought he needed or could use to advantage under the conditions. I am referring particularly to the period prior to the year 1914. Since that time that practice has not been followed out to such an extent, excepting during the fore part of the years 1916 and 1917, when the reservoir was full of water, going over the spillway, and such water as was not picked up by the canals went to waste. During those times we allowed them to draw excess water, the amount that they requested, or up to the capacity of their ditches.

We have been endeavoring during the past two or three years to get weirs installed at all the private diversion points. There are still a few points at which we do not have weirs. I can't tell you how many weirs we installed during 1919. It wasn't materially different though from the present situation. I should say that possibly 10 per cent of the weirs now in were installed since the season of 1918.

The topography of the four tracts is similar in some respects and somewhat different in others. The Richfield tract, which surrounds a high area of ground, has a fairly pronounced slope in all

directions, that is, east, west, and south, a fairly uniform slope in those directions. There are fewer minor irregularities and transverse slopes in that section than on the North Shoshone tract, the east end of the North Gooding tract in particular. There is a considerable area on the South Gooding tract—well, I should say first the situation on the South Gooding tract is quite similar to that described as to the Richfield tract. In that case the tract surrounds a high knoll or hill, with a slope in all directions from that. There is, however, on the South Gooding tract a little larger percentage of the area more nearly what would be called level, in Idaho. The topography of the Dietrich and North Gooding, particularly the west end of the North Gooding tract, is different, in that we don't have the pronounced slope—more a series of hills and occasional depressions, with varying slopes.

On account of the conditions which I have described, the surface drainage, of course, is good. As to subsoil drainage conditions, which are also good, I base my opinion on what I have been able to observe in the case of cess pools, in the case of considerable areas of solid rock which have been exposed by canal channels, originally covered, when the canals were constructed, by earth. It is conceded—I have observed that without any special provisions the subsoil, or, that is, the lava rock underlying the subsoil, is open enough to carry away the water, that is in general, to carry away the

water which gets down that far, although it is by no means, excepting occasionally, it is by no means, unlimited in that respect, the best proof of that being that wherever it has been desirable to carry away water in any quantities it has been necessary to drill holes into some crevice or good-sized cavity, where encountered.

My observations as to ponds or accumulations of surface water on the project include three different classes of water holding areas. There are scattered over the project on all the tracts occasionally depressions from which there is no surface channel, and into which small quantities of waste water run more or less continuously or intermittently throughout the irrigation season, water from the adjoining farms. Water stands in those places throughout the season, and there is a considerable growth of cat tails and water plants. I have also observed in a few instances potholes or natural lakes into which water runs naturally from the adjoining country in the spring, or into which it has been conducted from the canals by farmers in that vicinity for stock purposes, and where water would not stand during the season, would be three or four or five feet deep possibly. It remains in there for a period of at least sixty days. I have observed this every year in these particular places, depending somewhat on the amount of water in there. As to ponds on the project, I can say that practically every farmer on the Richfield tract has a pond of

some kind, some small and a few quite large. This is true to a more limited extent on the Dietrich tract, and to a more limited extent on the North Gooding tract, than it was at one time, on account of the fact that a great many of the farmers in the vicinity of Gooding have now provided themselves with wells. These ponds, depending on the size,—and we have had occasion to observe this because we have been called upon every fall after the close of the irrigation season to make a run of water particularly for the purpose of filling ponds,—these ponds, depending on the size, hold water all the way from two weeks to two and sometimes three months. On the Richfield tract, where there are the most ponds, the farmers have no difficulty in having stock water if they get a run of water as late as the first of December, if they get another run early in April, or as near as possible after the first of April. Certain farmers adjacent to the Cottonwood slough and the Jim Burns slough, which are natural channels in solid rock, where there is no soil on top, depend for their winter water on the water which stands in holes right in the rock.

Since 1911, our records show that prior to the 25th of April, the average who requested water for irrigation purposes is thirty-five. The average for the month of October is thirty-six. That is since 1911 to 1919, inclusive.

Paper marked Defendant's Exhibit No. "10" shows the acreage in cultivation on the Idaho Irri-

gation Company project for the years 1911-1919 inclusive. The same was introduced as evidence and is as follows:

Defendant's Exhibit No. "10"

ACREAGE IN CULTIVATION

IDAHO IRRIGATION COMPANY PROJECT

|      |       |        |
|------|-------|--------|
| 1911 | ..... | 17,464 |
| 1912 | ..... | 23,068 |
| 1913 | ..... | 25,755 |
| 1914 | ..... | 31,205 |
| 1915 | ..... | 33,477 |
| 1916 | ..... | 36,621 |
| 1917 | ..... | 39,121 |
| 1918 | ..... | 45,044 |
| 1919 | ..... | 56,864 |

From my examination and acquaintance with the Idaho Irrigation Company project, I would say the average length of farm laterals is about a quarter of a mile.

CROSS-EXAMINATION

By MR. BISSELL.

I think the average farm lateral is only a quarter of a mile from the place of intended use, as to each farm unit. A farm unit is anywhere from forty acres to one hundred sixty acres, or more, whatever happens to be included in the farm. I think each farmer's lateral averages a quarter of a mile in length to the edge of his farm and to get the water through to the other side of the farm it is at least another quarter of a mile if the farm is

forty acres. What I am talking about is the length of the farm lateral between the edge of the farm and the ditch.

Q. Then assuming that the farm lateral between the edge of the farm unit and the ditch from which it diverts water is a quarter of a mile in length, the average farm lateral could not be shorter than a half mile?

A. It probably would not be, no.

Q. Then how do you arrive at the average length to the edge of the land?

A. From my general knowledge of the headgate locations, a great many of which, the data of which I have handled, my observations over the project, my knowledge of the number of headgates that are located the full half mile distant, and the number that are located right on the land, I consider that a very fair estimate.

Nelson Hayward, called as a witness on behalf of the defendants, testified as follows:

**DIRECT EXAMINATION**

By MR. HODGIN.

I reside on the Salmon River project in Twin Falls County, approximately seven miles from the center of the town of Twin Falls. I have resided there eight and three-quarters years. During my residence there, I have been engaged entirely in farming. I had farmed in an irrigated country about one year before that. I have had about nine years' experience on an irrigated farm. I have 120

acres. I have irrigated that entirely alone during all these years. When I went on it, it was entirely in sage brush. The whole tract was in the extreme pioneer stage. I have irrigated my farm with different quantities of water during different years; I have in mind the different results which I have obtained, with the different amounts of water. I am very familiar with the South Side Twin Falls project, and I am quite familiar with the average crops of the various kinds of produce on that project. I have been at Shoshone, Idaho, and observed the methods of irrigation around Shoshone, and the character of the soil, there, and I have been over the Salmon River tract in detail, with a view to making observations as to the results obtained. I have read but very little on the duty of water. I have read some of Don Bark's book, and a book written by Professor Buffum in the early days, and I have read one or two bulletins put out by the Agricultural Department of the United States on farming and the use of water. I have made experiments as to what could be done on my own farm each year.

THE COURT: I understand, sir, that you have a single farm there?

A. Yes, sir.

Q. One where you got more water than others?

A. There have been no two years on the Salmon tract when our water has been alike. It has varied every year.



Q. Has there been any year there in recent times when you have gotten enough water?

A. Yes, sir. I figure I have had enough water every year I have been there. The results would demonstrate that.

Q. You had enough this year?

A. I had sufficient to raise what was considered a maximum crop in the county generally,—more so, as a matter of fact.

Q. How late did you get water this year?

A. The last day that water was delivered on my farm was July 10th.

Q. July 10th?

A. July 10th.

Q. That is as late as you need water there, is it?

A. Well, it could possibly be used to advantage later. I wouldn't say it couldn't, but at that time, my crop was sufficiently matured that it did not need any more water.

Q. What was your crop?

A. That is, with the exception of some alfalfa. The crop was chiefly wheat and oats. There was some hay and some alfalfa seed.

Q. The only comparative study you have made is that one year you had more water and another year less?

A. No, Your Honor; I have experimented by applying the water in different amounts each year and using different methods. I am entirely self-taught in this respect, I might say, and any success

5  
6  
7

I might have had there is due to the fact that I have been able to intelligently apply that water and find out the best method of doing it.

THE COURT: I think I will let him answer the general question. You may ask him the general question, as to what he thinks to be the duty of water.

MR. HODGIN: Q. State to the Court, Mr. Hayward, what in your opinion is the duty of water?

A. On which project?

Q. On the Idaho Irrigation Company project, having in mind the testimony you have heard here in the courtroom?

A. Two acre feet at the farmer's headgate.

Whereupon it was stipulated as follows:

It is stipulated that the exhibit may be introduced and that it correctly shows the status of the records of the Big Wood River Reservoir & Canal Company, limited, at the dates indicated, and the Idaho Irrigation Company, with the further qualification that the figure 12,722.64, which has been reduced by shares sold and resold to the extent of 3,143.61, has been sold since the institution of this suit, and since the plaintiff in this action had lis pendens on file, and that such sales were made by the Trustees, parties defendant in this action, with the understanding and the agreement that in the event of an adverse decision to said defendants in this action that said trustees would make compensation or a refund to the purchasers of said shares of stock.

MR. BISSELL: That is practically the stipulation. In other words, that the total number of shares outstanding are 88,835.71 of which the Idaho Irrigation Company owns and controls 12,722.64 shares.

MR. WALTERS: Subject to the qualification recited in my stipulation.

MR. BISSELL: That is to say, it is held in the name of the various trustees, but the Idaho Irrigation Company is the beneficial owner thereof, that that is the land to which Mr. Kays' testimony applies, that the Idaho Irrigation Company is the beneficial owner thereof.

MR. WALTERS: That is correct, in the line of the stipulation suggested by myself and Mr. Bissell.

L. CROSBY, recalled as a witness on behalf of defendants, testified as follows:

DIRECT EXAMINATION.

By MR. OPPENHEIM.

The company's best record as to the average capacity of the reservoir is represented by a curve which has been computed from the inflow and outflow records of the reservoir. Defendant's Exhibit Number "12" is the curve I just mentioned. It was made up by taking the mean of the inflow and outflow records for the years of which we have record, that is, during the time of draught on the reservoir. By that method, we are able to compute the average capacity of the reservoir. That capacity

is 191,500 acre feet. Explaining more in detail, the record was made up as follows:

The gauge at the reservoir is read at least once daily, and a record of the inflow and outflow is shown on what we term automatic gauge sheets; that is, we have an automatic gauge at each of the two stations above the reservoir and one at the rating station below the reservoir, and these show a continuous record of the flow—or the elevation of the water surface at each station. That shouldn't be confused with the discharge of the reservoir, by the way. Summing up the two stations above the reservoir gives the total inflow for any given period. For the purposes of this curve the flow for the periods corresponding to the readings of the reservoir gauge was determined by the flow of the two stations together. A similar determination was made of the outflow from the reservoir. The difference gives the draught on the reservoir, the number of acre feet drawn from the reservoir for the section of the reservoir between the two elevations of the water surface indicated by the two consecutive daily gauge readings. That method was carried through the range of the reservoir from capacity to the elevation of the spillway.

It was necessary to take more than one year's record because in only one year did we have the full range of the reservoir from the zero storage to the spillway. In certain years the reservoir did not fill. There are two years of record in which the

reservoir neither filler nor was drawn to the zero capacity. This curve was constructed by taking the years in which the reservoir was drained to zero capacity and joining the capacity tabulation with those years in which the reservoir reached the spillway elevation. That is merely a matter of taking a mean proportion between two consecutive daily records for one year to the same gauge height in the other year, and that gives the basis for the consecutive additions of those daily capacities.

Losses are not to be deducted from the figures 191,500 acre feet, which I have given because this method of computation gives the actual amount of water, actual average amount of water drawn from the reservoir after the inflow had supplied all losses.

Defendant's Exhibit Number "12" was admitted in evidence. (Said Exhibit need not be incorporated in the record, but the Clerk will transmit same to the Clerk of the Circuit Court of Appeals for use of the members of that Court.)

Defendant's Exhibit Number "13" is a list of deliveries on the main canal heads on the Big Wood River Project as indicated by the Idaho Irrigation Company records, for the years 1911 to 1919, inclusive, with the exception of 1917, which has not been computed and was not available on short notice. It is a true copy of the Company's records of the deliveries referred to.

The Exhibit was admitted in evidence, and the 1917 deliveries were later computed and inserted in the Exhibits. Said Exhibit is as follows:

DEFENDANT'S EXHIBIT NO. 13.  
DELIVERY AT MAIN CANAL HEADS ON THE  
BIG WOOD PROJECT AS INDICATED BY  
THE IDAHO IRRIGATION COM-  
PANY'S RECORDS.

|      | Acre Feet |
|------|-----------|
| 1911 | 180226    |
| 1912 | 204065    |
| 1913 | 229548    |
| 1914 | 210239    |
| 1915 | 126945    |
| 1916 | 285076    |
| 1917 | 251046    |
| 1918 | 215903    |
| 1919 | 178232    |

Defendant's Exhibit Number "14" is a record of the delivery at the farmers' headgates on the Big Wood River Project as indicated by the records of the Idaho Irrigation Company for the years 1911 to 1919 inclusive. Said Exhibit was admitted in evidence and is as follows:

DEFENDANT'S EXHIBIT NO. 14.  
DELIVERY AT FARMERS' HEADGATES ON  
THE BIG WOOD PROJECT AS INDICATED  
BY THE IDAHO IRRIGATION COM-  
PANY'S RECORDS.

|      | Acre Feet |
|------|-----------|
| 1911 | 78925     |
| 1912 | 102569    |
| 1913 | 123473    |
| 1914 | 139106    |
| 1915 | 87561     |
| 1916 | 170769    |
| 1917 | 170968    |
| 1918 | 123007    |
| 1919 | 109273    |

Defendant's Exhibit Number "15" is a tabulation of the rights under the Frost decree, below Magic Reservoir, showing—on the Big Wood River, showing cumulative totals owned by others, and also by the Idaho Irrigation Company; also a similar tabulation for the rights on the Little Wood River below a point about one mile east of Richfield, taken from the same Frost decree.

It is a copy of the record used in the operation of the system, the last three columns of this Exhibit showing the cumulative total acre feet, beginning with the right of eldest priority, to the last right below the points mentioned in the decree on the respective rivers. The first column, the accumulated, owned by the Idaho Irrigation Company. In the second, the accumulation owned by others; and in the third column the accumulated total of both ownerships.

The rights are arrived at in order of priority. Said Exhibit was admitted in evidence. (This Ex-

hibit need not be incorporated in the record, but the clerk will transmit the same to the clerk of the Circuit Court of Appeals for the use of the members of that Court.)

#### CROSS-EXAMINATION.

By MR. BISSELL.

Q. Mr. Crosby, calling your attention to Exhibit 13, I see that for the year 1911 your record shows that a delivery was made at the main canal heads of the Big Wood project, of 180,226 acre feet, while for the same year a delivery was made at the farmers' headgates of 78,925 feet. Does the difference between the sum of 78,925 feet and 180,226 feet represent the loss in the canals?

A. It is a very approximate representation of the loss. It also includes wastage out of the ends of the laterals, which was never delivered or pretended to be delivered.

In that year part of this water escaped from the Idaho Irrigation Company's system entirely, and part of it was taken into the canals again. The same is true to a more or less degree of each year shown on the chart. I have no other means of arriving at the loss in the canals than this for the system as a whole. With reference to the loss in the river, I will say that in my recollection the company made the current meter investigations of the losses in the river. I can't place the years right now. The first one, I think, was along in early December, 1914, when there was a small amount of



water in the river, and it was cold, the water was naturally cold;—between the Magic Dam and the North Gooding diversion there was determined a loss of approximately 20 second feet. I don't remember at present.

The Company has records from which the amount of water that is lost and wasted by means of running over the spillway after the reservoir has filled, in those years in which it was filled, might be approximated in a very rough way. I have never attempted to figure that out.

Q. Mr. Crosby, calling your attention to Plaintiff's Exhibit No. 1, which shows the total flow of Big and Little Wood rivers for each year, could you, by subtracting the amount of water that was delivered at the headgates of the Idaho Irrigation Company's system, the diversion, and subtracting the prior rights also—arrive at the amount of waste which goes down the Big Wood River and is lost?

A. You could arrive at a figure what might approximate that. I doubt its accuracy.

Q. Well, if you took the total flow of the river, and from that deducted the water diverted by the Idaho Irrigation Company, and then deducted the amount of the other rights served, would the balance not be the amount lost by waste, down the river?

A. The reason, Mr. Bissell, that I say it would not be accurate, is the fact that the Idaho Irrigation Company has no record of the deliveries to prior

decrees, and I doubt if there exists any record of that, in years prior to the time the state took over the supervision of the river.

It is my recollection that was in 1915. By taking these parts of Exhibit "1" which contain the flow of the Big and Little Wood Rivers from the years 1915 to 1919 inclusive, and deducting therefrom the prior rights and the amount diverted by the Idaho Irrigation Company, at its various head works, you could arrive at a figure which would represent what has escaped down the river in those years. During the years 1916 and 1917, I couldn't say off hand, but I think probably for short periods, the system was operated at its full capacity, as far as capacity of the main canals were concerned, it was very nearly full capacity during those years. The reservoir was not exhausted in 1917. It was exhausted in 1918 and in 1919 and in 1915.

Whereupon the following proceedings were had:

MR. WALTERS: We offer in evidence, Your Honor, Plaintiff's Exhibits 9, 6, 8, 7, and 5.

MR. BISSELL: To which we object, for the reason that it has not been shown that either the amounts of water referred to in the charts had been measured by any person who testified to the correctness of the measurements and that to their own knowledge the amounts there designated had been actually applied, and for the further reason that there is no evidence whatever to show that the grain there represented or the hay had been weighed of

measured, or no testimony showing the weights or measurements thereof. And for the reason that the same have not been properly identified. They are incompetent and immaterial, and at best are compiled from hearsay information, being the statements of employees of the company made to another employee of the company, for the purpose of being introduced in evidence in this suit. It seems, as far as the testimony shows, that on the Dietrich tract there was some three or four men who have not been here at all took the measurements, and there was at least seven men, six men, who had to do with the measurements of the water on the Richfield experiments, who have not appeared to testify.

MR. WALTERS: I wonder if the objection don't go more to the weight to be given to the testimony in this Court than to an iron-clad objection. We submit the matter, Your Honor, that it may be of some assistance to Your Honor.

THE COURT: The objection is sustained.

MR. WALTERS: We offer in evidence the upper half of Exhibit 7, for the defendant, and the upper left hand quarter of Defendant's Exhibit 6, on the theory that the same was identified by Mr. Senior as to the weights indicated, the product or returns from the crops, and that the correctness of the water measurements were testified to by Mr. Gorton and the other witness, Dysart.

MR. BISSELL: That is objected to for the same reasons as were made to the introduction of the entire charts, there being no testimony on the part of Mr. Senior, as I remember it, that he personally weighed the crops. He said that they were weighed by a Mr. Youngkin, neither one of the weigh measurements having appeared here, and there being no evidence whatever that the scales they were weighed upon had been inspected as provided by the statutes of Idaho, and were correct, and no weight tickets presented.

MR. WALTERS: I submit those have been closely enough identified for admission.

MR. BISSELL: We desire to enter the further objection that the same are founded upon hearsay.

THE COURT: I doubt, gentlemen, whether these are competent. Now, to be of any value, it ought to be shown that these plats were handled in substantially the same way, and these measurements should be given. I would be inclined to think that the evidence is sufficient as to water measurements. The testimony as to the weighing of the product is very meagre, but perhaps that would pass. Possibly Mr. Walters' suggestion that that is rather as to the weight of the testimony than its competency—But thus far at least there is no evidence, as I recall it, as to how these tracts were handled. It is true that when Professor Thom was on the stand in a general way he testified to a great many things that turned out to be merely supposi-

tion. I assumed when he testified here that he was there and personally supervised these experiments, but as I afterwards understood his testimony he was away as much as six weeks at a time. It is easy to see that any slight error here would necessarily materially affect the result. The operation was on such a small scale that a very slight error in one factor or another would materially affect the result. I think in the present status of the record at least I shall have to sustain the objection.

MR. WALTERS: The defense rests, Your Honor.

MR. BISSELL: At this time, Your Honor, I move to strike from the record all the testimony of Professor Thom based upon the plat in question and upon the experiments alleged to have been conducted by him, on the grounds that any information that he might have had concerning the matters to which he testified was hearsay.

THE COURT: The motion will be allowed as to a part of his testimony. He did, when he went on the stand a second or third time, testify as to his personal participation in gathering samples of the soil. I don't know that any of those are shown on the soil. I don't know that any of those are shown on the plats, however. But anyway, so far as his testimony relates to these plats, it will be stricken out.

MR. BISSELL: I desire at this time to move that the testimony of the witness Senior, so far as

the plats are concerned and his explanations thereof, be stricken from the record.

THE COURT: Well, it becomes immaterial, of course, if the defendant is going no further. The motion will be allowed.

Whereupon with the approval of the Court it was stipulated and agreed that the pleadings may be deemed amended to conform to the proof.

Whereupon both parties rested. After the cause had been argued and submitted, the Court rendered its decision on July 19, 1920, and decree was entered on December 20, 1920. Thereafter, and on February 12, 1921, the defendants filed petition for rehearing and on the same date, Frank T. Disney and others filed petition for leave to intervene in said cause and filed their complaint in intervention. And an order pro forma allowing the intervention was made, entered and filed on March 2, 1921. Thereafter and on March 21, 1921, an amended complaint in intervention was filed, which amended complaint in intervention the clerk will insert in an appropriate place in the record on appeal. And thereafter, on March 30, 1921, plaintiffs filed a motion to strike certain paragraphs and portions of said amended complaint in intervention, which motion the clerk will insert in the record following the amended complaint in intervention. And thereafter, on April 6, 1921, and after hearing counsel for the respective parties, the Court rendered its decision which the clerk will insert in the record fol-

lowing the motion to strike. And after further hearing on the issues of fact and law on other certain paragraphs of the amended complaint in intervention, the Court on May 7, 1921, made and entered an amendment to the decree theretofore entered in said cause, which amendment, the clerk will insert in the record immediately following the decree and on the same date, the Court further made and entered an order to strike from the amended complaint in intervention certain paragraphs in accordance with its memorandum decision of April 6, 1921, which order the clerk will insert in the record following the amendment to decree. And on the same date, viz., May 7, 1921, the Court made and entered an order overruling and denying defendant's petition for rehearing, which order, the clerk will insert in the record following the order last above referred to.

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(Title of Court and Cause.)

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**STIPULATION IN RE RECORD ON APPEAL.**

**IT IS HEREBY STIPULATED AND AGREED** by and between the parties to the above entitled cause, through their respective solicitors, as follows:

1. That if the Circuit Court of Appeals shall, of its own motion, determine that any part of the record not included in the printed transcript should have been so included for the information or convenience of the Court, or if either party shall here-

after conclude that any additional part of the record whether certified to said Circuit Court of Appeals or not, should be a part of the printed record, the same may be certified to said Circuit Court of Appeals, and if required, printed as a supplement to the record at the expense, in the first instance, of the appellants.

2. That the statement of evidence prepared by appellants and lodged with the Clerk of the Court on the 12th day of August, 1921, may be settled, certified and approved by the Judge of said Court as the statement of evidence on this appeal under the Equity Rules.

3. That the clerk shall forthwith proceed with the printing of the record in said cause and include therein the documents specified in the praecipe filed by appellant on August 12th, 1921, together with two stipulations relating to modifications of the decree filed May 7th, 1921, and together with this stipulation.

4. It is expressly understood and agreed that the plaintiffs and the State of Idaho, appellees herein, reserve any right they may have to move for a dismissal of said appeal and that this stipulation is entered into without waiver of any of the rights they may have to move for a dismissal of such appeal.

Dated this 12th day of September, 1921.

WALTERS & HODGIN,  
*Solicitors for the Idaho Irrigation Company, Limited.*



RICHARDS & HAGA,  
*Solicitor for Trustees.*  
E. D. REYNOLDS,  
*Solicitor for Frank T. Disney,*  
*et al.*  
W. G. BISSELL,  
*Solicitor for Plaintiffs.*  
ROY L. BLACK,  
*Solicitor for State of Idaho.*

Filed Sept. 12, 1921.

W. D. McREYNOLDS, Clerk.

Subject to and in harmony with the above stipulation, the forgoing is settled as the defendants' statement on appeal, with the understanding that in the printed transcript there shall be inserted in appropriate order all exhibits, documents and files the insertion of which is called for by said statement, and that the clerk shall transmit with the transcript original exhibits numbered as follows: Plaintiff's 2, 7, 8, 13, 14, 15, 17, 18, 19, 20, 25, 26, 27 and 28; Intervenor's 2 and 3; Defendants' 4, 5, 12 and 15.

Dated this 3rd day of October, 1921.

FRANK S. DIETRICH,  
*District Judge.*

Filed Oct. 3, 1921.

W. D. McREYNOLDS, Clerk.

(Title of Court and Cause.)

MOTION TO STRIKE PARTS OF COMPLAINT  
IN INTERVENTION.

Motion to strike certain paragraphs and portions of the complaint in intervention of Frank T. Disney, et al., filed March 19th, 1921.

Comes now here the plaintiffs above named and move to strike from the complaint in intervention lodged herein by Frank T. Disney, et al., on the 19th day of March, 1921, all the following subsections or portions of paragraph three of said complaint in intervention, to-wit:

B, C, D, F, H, I, J, L, M, N, O, P, Q, R, S, T, U,  
V, W, X, Y, AA, BB, CC, FF, GG, HH, II, KK,  
LL, & MM.

for the reason that the said complaint in intervention shows upon its face that this action was filed in the District Court of the Fourth Judicial District of the tState of Idaho, in and for Lincoln County, on the 7th day of December, 1917, and that lis pendens, as provided for by the statutes of Idaho, was on said date duly recorded in the said county of Lincoln and afterwards and on the 11th day of December, 1917, duly recorded in the County of Gooding, State of Idaho; that the intervenors mentioned in said subsection or portions of paragraphs three above referred to each purchased his land from the Idaho Irrigation Company, or its trustee, after the filing of the said complaint and the recording of said lis pendens; and for the further reasons that said complaint in intervention as amended fails to allege that said purported intervenors had no knowledge of the pendency of the ac-

tion in time to intervene before the trial of the suit; for the further reason that said complaint in intervention as amended is filed too late, that is to say, after the entry of the decree herein, and contains no showing upon which the Court can equitably order a re-hearing or re-trial of the issues involved.

Dated this 31st day of March, 1921.

KARL PAINE,  
W. G. BISSELL,  
*Attorney for Plaintiffs.*

Filed March 31, 1921.

W. D. McREYNOLDS, Clerk.

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(Title of Court and Cause.)

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MEMORANDUM DECISION ON PETITIONS  
FOR REHEARING AND INTERVENTION

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April 6, 1921.

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W. G. Bissell and Karl, Paine, Attorneys for Plaintiffs.

Walters & Hodgin and Richards & Haga, Attorneys for Petitioners.

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Dietrich, District Judge.

This suit was commenced on December 7, 1917, in a district court of the state, and in due time was removed to this court. The defendant Idaho Irrigation Company, is the promoter of a Carey Act project. The plaintiffs are settlers upon the project

severally holding contracts for water rights for their lands. Their complaint exhibits the contention that the defendant had sold water rights in excess of the supply of water available for the system and was continuing to sell additional rights. They recognized the equal dignity of all outstanding contracts, and sued not only in their own behalf but for all holders of valid contracts, and prayed the defendants be permanently enjoined from issuing any new contracts and also from again disposing of certain rights which had been originally sold to settlers but had reverted to or had been repurchased by the promoting company. Pursuant to a statute of the state (Rev. Stat., Idaho, Sec. 4142), providing that in an action affecting the title or the right of possession of real property, the plaintiff, at the time of the filing of the complaint or thereafter, may file for record with the county recorder of the county in which the property or some part of it is situated, a notice of the pendency of the action, the plaintiffs filed a notice of lis pendens, in due form, in the proper county office, on December 11, 1917. By the terms of the statute all purchasers or incumbrancers after the filing of such a notice are deemed to have knowledge of the pendency of the suit. Water rights are defined by the statute as real property.

The cause was not brought on for trial until 1920; written decision substantially sustaining the plaintiff's contentions was filed July 19, 1920.

After considerable delay and certain conferences between counsel touching its form and scope, the decree was signed and filed on December 20, 1920. By the terms thereof the defendants are enjoined from selling or disposing of any more water rights or issuing or transferring stock in the holding corporation, representing water rights. Furthermore, all water rights and contracts for rights upon certain described lands are cancelled and made ineffectual,—the contracts and rights so referred to being such as were originally sold to settlers and by foreclosure or other means had come back into the hands of the promoting company, and were held by it at the time the suit was commenced.

In recognition of the fact that the plaintiffs were suing for a class, all the members of which were admittedly upon the same footing, namely, all settlers who at the time of the commencement of the suit were holders of valid water contracts, a proviso was inserted in the decree to protect against the possibility of an inadvertent inclusion of a valid right in the list of cancelled water rights. By this proviso the right or claim of any person not a party to the suit, based upon a valid contract entered into in good faith prior to December 7, 1917, and in force upon that date, is excepted from the operation of the decree.

On February 12, 1921, the defendants filed a petition for rehearing, setting forth, among other things, that by the decree the court had cancelled

water rights held by certain settlers who were not parties to the suit, and at the same time counsel for the defendants filed upon behalf of certain of such settlers a petition to intervene, tendering with it a proposed complaint in intervention. On March 2, 1921, pursuant to a standing rule of the court, this petition was allowed, *ex parte* and *pro forma*. Subsequently, after a partial hearing upon the question of the propriety and sufficiency of the intervention, the intervenors sought and were granted leave to offer an amended complaint in intervention. In the amended complaint, filed March 21st, a large number of claimants are joined with the original petitioners, thirty-eight in all, and the claim of each is set forth separately in paragraphs numbered from I to MM inclusive, excepting only JJ, for which there is no corresponding paragraph.

By what is designated an answer to certain of the paragraphs in this amended complaint, namely, paragraph A, E, G, DD, and EE, the plaintiffs concede that under the proviso in the decree hereinbefore referred to the lands described in said paragraphs should be eliminated from the list of lands specifically described in the decree, and accordingly pray that the decree be corrected by striking out of such list these tracts, namely, lots 1 and 2 of section 30, 3 south, 19 east; the west half of the southwest quarter of section 11, 5 south, 19 east (as to this description it is suggested that the range should be 18 instead of 19); the north half of the

southwest quarter of section 9, 6 south, 15 east; the southwest quarter of the southeast quarter of section 13, 6 south, 18 east; the east half of the southwest quarter of section 10, 6 south, 14 east. And in that connection and for the same reason plaintiffs concede errors as to other lands not described in the complaint in intervention, and ask that they also be eliminated from the decree, namely, the northeast quarter of the southeast quarter, section 11, 5 south, 17 east; the south half of the northwest quarter of section 12, 6 south, 18 east; the northeast quarter of the southwest quarter, section 35, 5 south, 15 east; the easterly  $15\frac{1}{2}$  acres of the southeast quarter of the southwest quarter of section 1, 5 south, 14 east.

Inasmuch as the plaintiffs ask for such modification of the decree under the proviso therein contained, and the modification will be beneficial to the defendants, and they consent thereto, an appropriate order or supplementary decree will be entered, making the modification.

At the same time, namely, on March 31, 1921, the plaintiffs filed a motion to strike out or dismiss all of the other 33 paragraphs or claims, with two exceptions—K and Z—, upon various grounds, one of which is that such claims do not present proper cases for intervention, and that the Court cannot equitably at this time order a rehearing or a retrial of the issues involved. Upon the face of the complaint in intervention it appears that none of

these rights was held by the intervenors when the suit was commenced, but that they were all contracted for after December 11, 1917. They are therefore not in the class for which the suit was brought. When the matter was first called to my attention I was of the impression that jurisdiction could and probably should be exercised notwithstanding the prior entry of the decree, to consider and adjudicate the claims. But upon reflection I have felt constrained to take a different view. Apparently the several claims are all distinct, each having its own peculiar facts, and it is difficult to see how they can now be investigated without opening up the decree entirely and retrying certain issues that had consideration when the decree was entered. The defendants have had their day in Court, and so far as their rights or interests are involved their petition for rehearing is thought to be without merit. If, as informally admitted, some of the paragraphs in the complaint in intervention relate to lands not described in the decree, no modification in respect thereto is needed. If some of the rights were contracted for after the suit was commenced, and, either constructively, through the notice of lis pendens, or actually, the purchasers knew of the pendency of the suit, they are to be deemed to be parties thereto, and were bound by the decree. They had the opportunity to come in and assert such rights as they claimed. If, upon the other hand, as counsel contend, not being parties to the suit, they



are not bound by the decree, they can ignore it and vindicate their rights to receive water in independent plenary actions. It is therefore thought that the motion to dismiss the complaint in intervention, insofar as it relates to these paragraphs, should be allowed.

Two other paragraphs, K and Z, are not involved in the motion. Touching one of these, Z, it is stated by counsel that a satisfactory understanding has been reached, and that the decree may be modified to obviate the controversy. I am not advised of the precise nature of the understanding. As to the other, K, the averments are such as to bring the claim within the proviso of the decree, that is, the claimant alleges that he was the holder of a valid outstanding contract at the time the suit was commenced. It is to be inferred that the plaintiffs intend in due time to put in issue the allegations of fact in this respect.

The order will be that plaintiffs' motion be granted.

Filed Apr. 7, 1921.

W. D. McREYNOLDS, Clerk.

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(Title of Court and Cause.)

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ORDER STRIKING CERTAIN PARAGRAPHS  
OF AMENDED COMPLAINT IN  
INTERVENTION.

WHEREAS, On the 19th day of March, 1921,  
one Frank T. Disney and others filed their amended

complaint in intervention herein, and

WHEREAS, Motion to strike certain paragraphs of said amended complaint was thereafter filed and argued and presented to this Court on the 29th day of March, 1921, and the Court having taken the same under advisement and filed a written memorandum decision on the 6th day of April, 1921, sustaining said motion to strike as filed.

It Is Therefore ORDERED, That all of the subparagraphs of paragraph III of said complaint in intervention, except K and Z, be, and hereby are, stricken from said complaint in intervention for the reasons assigned in said memorandum decision heretofore filed and referred to.

That the plaintiffs file their answer to subparagraphs K and Z and that said petition in intervention be heard as upon such paragraphs only.

Dated at Boise, Idaho, this 7th day of May, 1921.

FRANK S. DIETRICH,  
*District Judge.*

Filed May 7, 1921.

W. D. McREYNOLDS, Clerk.

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(Title of Court and Cause.)

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ORDER DENYING PETITION FOR  
REHEARING.

WHEREAS, On the 12th day of February, 1921, the defendants duly filed and presented their petition for rehearing, which matter was called to the attention of the Court and taken under advisement,

and which said petition for rehearing was denied by the memorandum decision of this Court dated April 6, 1921;

THEREFORE, Be It ORDERED, That said petition for rehearing be and hereby is denied and refused.

Dated this 7th day of May, 1921.

FRANK S. DIETRICH,  
*District Judge.*

Filed May 7, 1921.

W. D. McREYNOLDS, Clerk.

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(Title of Court and Cause.)

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PETITION FOR APPEAL.

The above named defendants, Idaho Irrigation Company, Limited, The Equitable Trust Company of New York and Lyman Rhoades, as trustees for the bondholders of the Idaho Irrigation Company, Limited, and M. R. Kays, as trustee, and the intervenors, Frank T. Disney, Owen J. Brennan, Dave Engle, W. B. Joy, John F. Engle, L. H. Dysart, H. J. Leyson, George W. Wedgewood, E. L. Tate, Otto Schild, W. S. Smith, M. R. Kays, E. G. Molsee, T. M. Osborn, Frank L. Thomas, Wm. Roseberry, J. B. Wilmoth, W. D. Fales, R. W. Houston, Mrs. Monnie Clinger, Steve Ballard, Arthur W. Garrett, George W. Bowman, George F. Gorow, Bert Wyant and Lillie Dale Wyant, H. D. Edwards, Mrs. C. J. Shafer, A. H. Bower, Elbert Sherman, Z. T. Spellman, J. H. Scott and Dionysius B. Kountaius, con-

ceiving themselves aggrieved by the decree made and entered in the above entitled cause on the 20th day of December, 1920, as amended on the 7th day of May, 1921, after the filing of a petition for rehearing by said defendants and a petition in intervention by said intervenors, do hereby appeal from said decree, as amended, and from the order striking out and denying the complaint in intervention of said intervenors, to the United States Circuit Court of Appeals for the Ninth Circuit for the reasons specified in the Assignment of Errors, which is filed herewith; and your petitioners pray that this appeal may be allowed and that citation issue as provided by law, and that a transcript of the record, proceedings and papers upon which said decree was based, duly authenticated, may be sent to the United States Circuit Court of Appeals for the Ninth Circuit.

Dated this 12th day of August, 1921.

WALTERS & HODGIN,  
*Solicitors for Idaho Irrigation  
Company, Ltd.*

Residence: Twin Falls, Idaho.

RICHARDS & HAGA,  
*Solicitors for Equitable Trust  
Co., of New York and Lyman  
Rhoades, Trustees, and M. R.  
Kays, Trustee.*

Residence: Boise, Idaho.

E. D. REYNOLDS,  
*Solicitor for the Intervenor  
joining in said appeal.*

Residence: Jerome, Idaho.

ORDER ALLOWING APPEAL.

AND NOW, to-wit: On the 12th day of August, 1921, IT IS ORDERED, That the foregoing petition be granted and that an appeal be allowed as therein prayed, and that an appeal be allowed as therein prayed, and that the said petitioners file a bond on appeal in the sum of Five Hundred (\$500.00) Dollars, with good and sufficient surety to be approved by the Court.

FRANK S. DIETRICH,

Filed Aug. 12, 1921.

*District Judge.*

W. D. McREYNOLDS, Clerk.

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(Title of Court and Cause.)

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ASSIGNMENT OF ERRORS.

AND NOW COME The defendants, Idaho Irrigation Company, Limited, The Equitable Trust Company of New York and Lyman Rhoades, as trustees for the bondholders of the Idaho Irrigation Company, Limited, and M. R. Kays, as trustee, and the intervenors, Frank T. Disney, Owen J. Brennan, Dave Engle, W. B. Joy, John F. Engle, L. H. Dysart, H. J. Leyson, George W. Wedgewood, E. L. Tate, Otto Schild, W. S. Smith, M. R. Kays, E. G. Molsee, T. M. Osborn, Frank L. Thomas, Wm. Roseberry, J. G. Wilmoth, W. D. Fales, R. W. Houston, Mrs. Monrie Clinger, Steve Ballard, Arthur W. Garrett, George W. Bowman, George F. Gorow, Bert Wyant and Lillie Dale Wyant, H. D. Edwards, Mrs. C. J. Shafer, A. H. Bower, Elbert Sherman, Z. T. Spell-

man, J. H. Scott and Dionysius B. Kountanius, and, having presented an appeal to the United States Circuit Court of Appeals for the Ninth Circuit from the decree made and entered in the above entitled cause on the 20th day of December, 1920, and amended on the 7th day of May, 1921, after the filing of a petition for re-hearing by the defendants and a petition in intervention by certain intervenors, say that said decree and the amended decree, and each of them, made and entered as aforesaid, and the decision made and filed by the Court in this cause on the 19th day of July, 1920, and the decision made and filed on the 6th day of April, 1921, are erroneous and unjust to these defendants and interveners and particularly in this:

1. Because the Court erred in holding, decreeing and deciding that the defendants, Idaho Irrigation Company, Limited, and Equitable Trust Company of New York and Lyman Rhoades, as Trustees for the bondholders of said Idaho Irrigation Company, Limited, and M. R. Kays, as trustee, be perpetually enjoined and restrained from selling, transferring or otherwise disposing of any of the capital stock of the Big Wood River Reservoir and Canal Company, Limited, which they or any of them held as assets of the said Idaho Irrigation Company, Limited, at the date of the commencement of said suit, to-wit, December 7, 1917, or which they or either of them may have acquired after said date.

2. Because the Court erred in holding, decreeing and deciding that the Idaho Irrigation Company, Limited, be perpetually enjoined and restrained from selling, transferring or otherwise disposing of water rights owned, held or controlled by it at the date of the commencement of said suit or acquired since said date, or from issuing contracts for the sale thereof.

3. Because the Court erred in holding, decreeing and deciding that all water rights sold by the defendants, or any of them, and all contracts for the sale of water rights issued by defendants, or any of them, for the lands described in the decree as amended, were of no effect, and in cancelling and annulling such water rights and the shares of stock in the Big Wood River Reservoir and Canal Company issued in connection with such sales and such contracts.

4. Because the Court erred in holding, decreeing and deciding that the decision of the Secretary of the Interior on the sufficiency of the water supply to reclaim, from the irrigation system described in the Bill of Complaint, the lands patented to the State of Idaho under the Act of Congress commonly known as the Carey Act, was ineffectual and not binding on the plaintiffs in said cause for any purpose.

5. Because the Court erred in holding, decreeing and deciding that proceedings under the Federal Statutes and regulations of the Department of the

Interior for obtaining patent to lands segregated under the Carey Act are ex parte proceedings and in no respect binding upon settlers on such Carey Act lands, or on users of water from the irrigation system supplying water for the irrigation of such lands, and in holding and deciding that such settlers and water users do not have and did not have, in the case at bar, an opportunity, to be heard in such patent proceedings.

6. Because the Court erred in holding, decreeing and deciding that if, in the opinion of the Court, the aggregate amount of water rights sold from the irrigation system of the defendant Idaho Irrigation Company, Limited, was in excess of the amount of water available, no injustice would be done the defendants by cancelling and annulling water rights appurtenant to lands acquired under foreclosure or otherwise by the trustees for the bondholders or by the Idaho Irrigation Company, Limited, notwithstanding the value of such lands and water rights, thereby rendered worthless, was far in excess of and bore no relation to the loss that would be sustained by plaintiffs and those represented by them, if such additional water were not received.

7. Because the Court erred in holding and deciding that if the defendant, Idaho Irrigation Company, Limited, had sold water rights in excess of its available supply, as determined by the Court, although for less than the acreage approved for



reclamation therefrom by the state authorities having jurisdiction of the matter, and by the Secretary of the Interior in the issuance of patent, the Court had jurisdiction and authority to cancel and annul the water rights for lands so patented by the Secretary of the Interior, if such lands had, through foreclosure, or otherwise, become the property of the trustees for the bondholders, or the defendant Idaho Irrigation Company, Limited, or M. R. Kays, Trustee for either of said parties, and notwithstanding such water had been used for many years for the irrigation and reclamation of such lands which now constitute highly improved farms of great value.

8. Because the Court erred in holding and deciding that the Court had jurisdiction and authority to determine what constituted an ample supply of water under the Carey Act for the Reclamation of lands patented by the Secretary of the Interior under said Act, and in wholly disregarding the decision of the Secretary on that subject, and in adjudging and decreeing that approximately 42,000 acres of Carey Act land patented by the Secretary for reclamation from said irrigation system should not receive water therefrom, and in enjoining and restraining the defendant from issuing or selling any water rights for the irrigation of said 42,000 acres.

9. Because the Court erred in holding and deciding that the defendant, Idaho Irrigation Company,

Limited, had sold water rights in excess of the capacity of its works or its available supply.

10. Because the Court erred in holding, decreeing and deciding that the settlers on the irrigation project of said Idaho Irrigation Company, Limited, were entitled under their contracts to 2.75 acre feet of water per acre measured at the farmers' headgates, without any regard to the decision of the Secretary of the Interior as to the amount of water required per acre to accomplish reclamation to the extent contemplated by the Federal Act, of the lands patented under said project, and by thus subordinating the terms of the Federal law to the provisions of private contracts the Court deprived approximately 42,000 acres of patented Carey Act land of the water dedicated for its reclamation.

11. Because the Court erred in disregarding the evidence and opinions of scientifically trained investigators and experts on the duty of water on said project and in holding and deciding that said investigators and experts could not make proper deductions or form correct opinions from the evidence available and the facts in evidence, but notwithstanding the assumed insufficiency of such evidence as a basis for opinion of scientifically trained experts in such matters, the Court based its own deductions and decree as to the duty of water on some parts of such evidence.

12. Because the Court erred in holding, decreeing and deciding that approximately two-thirds of the irrigable acreage under said project will be devoted to the raising of hay and root crops requiring a large amount of water, and only one-third to the raising of grain crops requiring a small amount of water, and in basing its conclusions as to the amount of water required per acre upon said assumed facts; and the Court further erred in holding and deciding that root crops require a large amount of water or substantially the same amount as hay crops.

13. Because the Court erred in holding and deciding that in determining the amount of water required per acre for the irrigation of lands under the project, no deductions should be made for roads or other non-irrigated tracts.

14. Because the Court erred in holding and deciding that the amount of water available for said project should be determined by taking the average of the amount actually delivered at the farmers' headgates during the nine years the project had been in operation and in wholly disregarding the fact that only a small acreage was in cultivation during the early years of the project, and that such acreage had been gradually increased, and that the Company, during such years, had only delivered the amount of water actually required by the land under cultivation, and in ignoring the fact that during the early years of the project much

water was wasted by seepage losses through new ditches and flumes, the efficiency of which would be increased from year to year for a number of years.

15. Because the Court erred in determining the amount of water available for said project by the amount that had been actually delivered for use on the project during a number of years when only a small acreage was in cultivation, and in wholly disregarding the evidence as to the amount of water available for storage and for delivery if the same had been required for use on the project during such years.

16. Because the Court erred in holding and deciding that the transmission losses in the main canals are in excess of thirty-five per cent.

17. Because the Court erred in holding and deciding that the amount of water available for said project was insufficient to supply the amount required to be delivered under the outstanding contracts of the defendant, Idaho Irrigation Company, Limited, without actually determining the amount of water available and in disregarding the allegations of plaintiffs in their pleadings and the admissions of plaintiffs during the trial as to the amount of water available for said project.

18. Because the Court erred in entering a decree cancelling and annulling water rights for a large acreage of patented Carey Act land without giving the defendant, Idaho Irrigation Company, Limited,

and the said Trustees, an opportunity to increase the water supply from other sources or by providing additional storage.

19. Because the Court erred in not holding, decreeing and deciding that the issuance of patent by the Secretary of the Interior was an approval by that officer of the sufficiency of the water supply for the lands patented, and that by virtue of such approval the said Company and said trustees were entitled to the benefit of the lien authorized by said Act of Congress and the laws of the tSate of Idaho accepting the provisions thereof, and that under said lien the Idaho Irrigation Company and said Trustees had a vested interest not only in said lands, but in the water dedicated for the reclamation thereof.

20. Because the Court erred in holding and deciding that the water appropriated for and dedicated to the reclamation of the Carey Act land patented by the Secretary of the Interior for reclamation from said irrigation system was not appurtenant to all of said lands, but that such water could be set aside for the reclamation of only a portion of said lands and thereby leave the balance of said patented lands without any water supply, and without re-apportioning the cost of said irrigation system so as to make the lands to which the water supply was by the Court made appurtenant responsible for the entire cost of reclamation and reasonable interest thereon.

21. Because the Court erred in enjoining and restraining the Idaho Irrigation Company, Limited, from selling water rights or furnishing water to entrymen desiring to enter and file upon some 42,000 acres of Carey Act land patented to the State of Idaho by the Secretary of the Interior for Reclamation from said project and in thus making it impossible for the State of Idaho to carry out its contract with the United States relative to the sale and entry of said lands, and thereby working a fraud upon the Federal government in the disposition of the public domain.

22. Because the Court erred in declining to admit in evidence certain plats prepared by the witness C. C. Thom and marked for identification as Defendants' Exhibits 5, 6, 7, 8 and 9, and offered as part of defendants' proof on the duty of water.

23. Because the Court erred in striking out on motion of plaintiff's counsel, over the objection of counsel for defendants, the testimony of the witness C. C. Thom, based upon or relating to the plats marked Defendants' Exhibits 5, 6, 7, 8 and 9, or relating to the facts shown by such exhibits.

24. Because the Court erred in striking out, on motion of counsel for plaintiff, over the objections of counsel for defendants, the testimony of the witness Allen Senior relative to the plats marked "Defendants' Exhibits 5, 6, 7, 8 and 9," and his explanations thereof and his testimony as to the facts

shown thereby, which testimony was part of defendants' proof on the duty of water.

25. Because the Court erred in holding, decreeing and deciding that plaintiffs were entitled to more water per acre than their proportionate share of the water dedicated to said project and approved as available therefor by the Secretary of the Interior when patent was issued.

26. Because the Court erred in not holding, decreeing and deciding that if plaintiffs were entitled to more water under their contracts with the Idaho Irrigation Company, Limited, than their proportionate share of the water dedicated to said project their relief, if any, would be an action on contract for damages, in the event said Company was unable to deliver such water by increasing the available water supply.

27. Because the Court erred in not dismissing plaintiffs' bill of complaint as amended, and in granting any relief whatsoever to plaintiffs in said cause.

28. And the defendants, Equitable Trust Company of New York and Lyman Rhoades, as Trustees, on their own account and in their own behalf in addition to the errors hereinbefore assigned, further claim error in this:

(a) Because the Court erred in holding and deciding that said Trustees were in any way responsible for the alleged wrongs of the Idaho Irrigation Company, Limited, in selling water rights in ex-

cess of what the Court found to be its available supply, and in depriving said Trustees and the bondholders which they represent of water for several thousand acres of land to which water had been made appurtenant by contracts of purchase and the actual use of water thereon.

(b) Because the Court erred in holding and deciding that the Trustees could not resell assets of the bondholders which said Trustees had acquired in the manner provided by law and not in contravention of any of the provisions thereof or contracts made pursuant thereto.

(c) Because the Court erred in not holding, decreeing and deciding that the defendants could not, without their consent, be deprived of the annual use of water for lands held by them, or either of them, and for the irrigation of which such water had been dedicated, sold and distributed; and in wholly disregarding the provisions of Section 4 of Article XV of the Constitution of the State of Idaho and other provisions of said Constitution and of the statutes of said State, making water forever appurtenant to land when it has once been sold or distributed to any person who has settled upon or improved land for agricultural purposes with the view of receiving the benefit of such water under such dedication, sale or distribution.

29. And the said intervenors named in the preliminary paragraph of this assignment of errors, on



their own account and in their own behalf, particularly assign error in this:

(a) Because the Court erred in holding, decreeing and deciding that all purchasers of water rights or lands from the defendants, or any of them, after the filing of the alleged notice of *Lis Pendens* in the office of the County Recorder of Lincoln County, Idaho, on December 7, 1917, and in the office of the County Recorder of Gooding County, Idaho, on December 11, 1917, had constructive notice of the pendency of said suit and were bound by any decree that would thereafter be entered therein either in the State or Federal Court, and that any water rights or lands purchased after the filing of said notice of *Lis Pendens* would be subject to the decree entered in such suit.

(b) Because the Court erred in holding, decreeing and deciding that these interveners acquired no right to water from the irrigation system of said Idaho Irrigation Company, Limited, under their respective contracts, and in enjoining and restraining the defendants from delivering any water under such contracts for the irrigation of the lands of said interveners.

(c) That the Court erred in holding, decreeing and deciding that said interveners were not entitled to intervene in said suit and secure relief therein, but should establish their claims, if any they had, by plenary action; and in holding and deciding that if said interveners are not bound by said decree

they may ignore it, without determining the fundamental question as to whether such decree applies to said interveners and is binding on them, or any of them.

(d) Because the Court erred in not holding and deciding that said intervenors were not affected by said decree, and in not directing that the defendant, Idaho Irrigation Company, Limited, and Big Wood River Reservoir and Canal Company, Limited, should recognize the rights of said interveners to water from said irrigation system and supply them with water in accordance with their respective contracts and the rules and by-laws pertaining thereto of said Big Wood River Reservoir and Canal Company.

WHEREFORE, the defendants and interveners joining in this appeal, pray that the decree entered herein be reversed and set aside with directions to said District Court to dismiss plaintiffs' bill.

WALTERS & HODGIN,  
*Solicitors for Idaho Irrigation  
Co., Ltd.*

Residence, Twin Falls, Idaho.

RICHARDS & HAGA,  
*Solicitors for the Equitable  
Trust Co. of New York and  
Lyman Rhoades, Trustees,  
and M. R. Kays, Trustee.*

Residence: Boise, Idaho.

E. D. REYNOLDS,  
*Solicitor for the Interveners  
joining in this appeal.*

Residence: Jerome, Idaho.

Filed Aug. 12, 1921.

W. D. McREYNOLDS, Clerk.

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(Title of Court and Cause.)

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BOND ON APPEAL.

KNOW ALL MEN BY THESE PRESENTS, That we, Idaho Irrigation Company, Limited, The Equitable Trust Company of New York, and Lyman Rhoades, as Trustees, and M. R. Kays, Trustee, and Frank T. Disney, Owen J. Brennan, Dave Engle, W. B. Joy, John F. Engle, L. H. Dysart, H. J. Leyson, George W. Wedgewood, E. L. Tate, Otto Schild, W. S. Smith, M. R. Kays, E. G. Molsee, T. M. Osborn, Frank L. Thomas, Wm. Roseberry, J. G. Wilmoth, W. D. Fales, R. W. Houston, Mrs. Monnie Clinger, Steve Ballard, Arthur W. Garrett, George W. Bowman, George F. Gorow, Bert Wyant and Lillie Dale Wyant, H. D. Edwards, Mrs. C. J. Shafer, A. H. Bower, Elbert Sherman, Z. T. Spellman, J. M. Scott and Dionysius B. Kountanius, Interveners, as principals, and the Boise Title & Trust Company, a corporation, as surety, are held and firmly bound unto the said plaintiffs and the State of Idaho, Intervenor in the above entitled cause, in the just and full sum of Five Hundred (\$500.00) Dollars, for the payment of which well and truly to be made, we bind ourselves, and each of us, and our and each of our heirs, executors, administrators, successors and assigns, firmly by these presents.

Sealed with our seals and dated this 12th day of August, 1921.

THE CONDITION of this obligation is such that,

WHEREAS, the above named Idaho Irrigation Company, Limited, and other defendants in said cause, and the said interveners herein named as principals, have prosecuted an appeal to the United States Circuit Court of Appeals in the Ninth Circuit from the decree made and entered in this cause on the 20th day of December, 1920, as amended on the 7th day of May, 1921, and from certain orders and decisions of this Court rendered in said cause, more particularly set forth in the petition for appeal and assignment of errors filed in said cause;

NOW, THEREFORE, if the above named defendants and interveners, appellants on said appeal, shall prosecute their said appeal to effect and answer all costs, if they shall fail to sustain their appeal, then the above obligation shall be void, otherwise the same shall be and remain in full force and virtue.

IN WITNESS WHEREOF, the said principals, have hereunto caused their names to be subscribed by their Solicitors of record and the said Surety, the Boise Title & Trust Company, a corporation, has caused its name to be hereunto subscribed by its duly authorized officers, and its corporate seal affixed, the day and year first above written.

IDAHO IRRIGATION COMPANY, LTD.

By WALTERS & HODGIN,

*Its Solicitors.*

EQUITABLE TRUST COMPANY OF  
NEW YORK, LYMAN RHOADES,  
By RICHARDS & HAGA,  
*Their Solicitors.*  
FRANK T. DISNEY, et al., Interveners.  
By E. D. REYNOLDS.  
*Their Solicitors.*  
BOISE TITLE & TRUST COMPANY,  
By O. O. HAGA,  
*Vice President.*

Attest:

By W. J. ABBS,  
*Secretary.*

(SEAL)

Approved:

DIETRICH, Judge.

Aug. 12, 1921.

Filed Aug. 12, 1921.

W. D. McREYNOLDS, Clerk.

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(Title of Court and Cause.)

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CITATION.

UNITED STATES OF AMERICA,—ss.

To Fred W. Gooding, Novinger & Darrah Sheep  
Company, Limited, a corporation, T. B. Jones, J.  
H. Culbertson, N. W. Sine, W. L. Biggs, Louis  
Johnson, C. B. Hess and Frank R. Gooding, and  
the State of Idaho, GREETING:

You are hereby cited and admonished to be and  
appear in the United States Circuit Court of Ap-  
peals for the Ninth Circuit, to be held at the City of

San Francisco in the State of California, within thirty days from the date of this Writ, pursuant to an appeal filed in the Clerk's office of the District Court of the United States for the District of Idaho, Southern Division, wherein The Idaho Irrigation Company, Limited, The Equitable Trust Company of New York, and Lyman Rhoades, as Trustee, and M. R. Kays, Trustee, and Frank T. Disney, Owen J. Brennan, Dave Engle, W. B. Joy, John F. Engle, L. H. Dysart, H. J. Leyson, George W. Wedgewood, E. L. Tate, Otto Schild, W. S. Smith, M. R. Kays, E. G. Molsee, T. M. Osborn, Frank L. Thomas, Wm. Roseberry, J. G. Wilmoth, W. D. Fales, R. W. Houston, Mrs. Monnie Clinger, Steve Ballard, Arthur W. Garrett, George W. Bowman, George F. Gorow, Bert Wyant, and Lillie Dale Wyant, H. D. Edwards, Mrs. C. J. Shafer, A. H. Bower, Elbert Sherman, Z. T. Spellman, J. M. Scott and Dionysius B. Kountanius are appellants and you are respondents to show cause, if any there be, why the decree and orders in said appeal mentioned should not be corrected and speedy justice should not be done to the parties in that behalf.

WITNESS the Honorable Frank S. Dietrich, United States District Judge for the District of Idaho, this 12th day of August, 1921, and of the Independence of the United States the One Hundred and Forty-sixth Year.

FRANK S. DIETRICH,  
*District Judge.*

Attest:

W. D. McREYNOLDS, Clerk.

Service of the foregoing Citation and receipt of a copy thereof admitted by the undersigned on this 12th day of August, 1921.

W. G. BISSELL,

W. T. STAFFORD,

KARL PAINE,

*Solicitors for Plaintiffs.*

ROY L. BLACK,

DEAN DRISCOLL,

*Solicitors for Intervenor.*

Filed Sept. 10, 1921.

W. D. McREYNOLDS, Clerk.

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(Title of Court and Cause.)

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PRAECIPE FOR TRANSCRIPT ON APPEAL.

To W. D. McREYNOLDS, Clerk of the above entitled Court:

You will please prepare the record on the appeal of the defendants, The Idaho Irrigation Company, Limited, et al., and the interveners, Frank T. Disney, et al., who have joined in the appeal taken in the above entitled cause from the decree made and entered in said cause on the 20th day of December, 1920, as amended on the 7th day of May, 1921, and from the orders made and entered in said cause denying any relief to said interveners, such record to consist of the following:

1. Complaint of plaintiffs, omitting the land description contained in paragraph five thereof, and inserting in lieu of such description the words, "Description of lands omitted in record on appeal."
2. Amendments to complaint of plaintiffs in the order in which the same were made.
3. Answer of defendants to plaintiffs' complaint.
4. Complaint of interveners, the State of Idaho.
5. Answer of defendants to complaint in intervention.
6. Statement of evidence under Equity Rule 75 as settled and allowed by the Court.
7. Decision filed July 19, 1920.
8. Decree entered December 20, 1920.
9. Amendment to decree dated May 7, 1921.
10. Amended Complaint in intervention of Frank T. Disney, et al.
11. Motion of plaintiffs to strike amended complaint on intervention of Frank T. Disney, et al.
12. Decision of court filed April 6, 1921.
13. Order made by Court on May 7th, 1921, striking certain paragraphs from the amended complaint in intervention.
14. Order made by the Court on May 7, 1921, denying defendants' petition for rehearing.
15. All papers filed in connection with this appeal, viz:

Petition for appeal.

Assignment of errors.



Order allowing appeal.

Bond on appeal.

16. Citation.

In preparing the above record, you will please omit the title of all pleadings except the complaint of plaintiffs, but in lieu thereof, insert the words, "Title of Court and Cause," to be followed by the name of the pleading or instrument. You will also omit the verification of all pleadings, but in lieu thereof insert wherever the pleading is verified, the words, "Duly Verified."

Dated this 12th day of August, 1921.

WALTERS & HODGIN,  
*Solicitors for Idaho Irriga-  
tion Co., Ltd.*

Residence: Twin Falls, Idaho.

RICHARDS & HAGA,  
*Solicitors for the Equitable  
Trust Co. of New York and  
Lyman Rhoades, Trustees,  
and M. R. Kays, Trustee.*

Residence: Boise, Idaho.

E. D. REYNOLDS,  
*Solicitor for the Interveners  
joining in this appeal.*

Service of the above praecipe and receipt of a copy thereof is hereby acknowledged this 12th day of August, 1921.

W. G. BISSELL,  
W. T. STAFFORD,  
KARL PAINE,  
*Solicitors for Plaintiffs.*

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ROY L. BLACK,  
DEAN DRISCOLL,  
*Solicitors for State of Idaho.*

Filed Aug. 12, 1921.

W. D. McREYNOLDS, Clerk.

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CLERK'S CERTIFICATE.

I, W. D. McREYNOLDS, Clerk of the District Court of the United States for the District of Idaho, do hereby certify the foregoing transcript of pages numbered from 1 to 616, inclusive, to be full, true and correct copies of the pleadings and proceedings in the above-entitled cause, and that the same together constitute the transcript upon appeal to the United States Circuit Court of Appeals for the Ninth Circuit, as requested by the praecipe for such transcript.

I further certify that the cost of the record herein amounts to the sum of \$826.00, and that the same has been paid by the appellant.

Witness my hand and the seal of said Court this 5th day of November, 1921.

W. D. McREYNOLDS,  
*Clerk.*

(SEAL)

[Endorsed]: Printed Transcript of Record.  
Filed November 9, 1921. F. D. Monekton, Clerk.  
By Paul P. O'Brien, Deputy Clerk.

**United States**  
**Circuit Court of Appeals**

**For the Ninth Circuit.**

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THE IDAHO IRRIGATION COMPANY, LIMITED, THE EQUITABLE TRUST COMPANY OF NEW YORK, AND LYMAN RHOADES AS TRUSTEES, AND M. R. KAYES, TRUSTEE, AND FRANK T. DISNEY, OWEN J. BRENNAN, DAVE ENGLE, W. B. JOY, JOHN F. ENGLE, L. H. DYSART, H. J. LEYSON, GEORGE W. WEDGEWOOD, E. L. TATE, OTTO SCHILD, W. S. SMITH, M. R. KAYS, E. G. MOLSEE, T. M. OSBORN, FRANK L. THOMAS, WM. ROSEBERRY, J. G. WILMOTH, W. D. FALES, R. W. HOUSTON, MRS. MONNIE CLINGER, STEVE BALLARD, ARTHUR W. GARRETT, GEORGE W. BOWMAN, GEORGE F. GOROW, BERT WYANT, AND LILLIE DALE WYANT, H. D. EDWARDS, MRS. J. C. SHAFER, A. H. BOWER, ELBERT SHERMAN, Z. T. SPELLMAN, J. M. SCOTT and DIONYSIUS B. KOUNTANIUS,

Appellants,

vs.

FRED W. GOODING, NOVINGER & DARRAH SHEEP COMPANY, LIMITED, a Corporation, T. B. JONES, J. H. CULBERTSON, N. W. SINE, W. L. BIGGS, LOUIS JOHNSON, C. B. HESS and FRANK B. GOODING, and the STATE OF IDAHO,

Appellees.

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Upon Appeal from the United States District Court for the District of Idaho, Southern Division.

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**PROCEEDINGS HAD IN THE**  
**UNITED STATES CIRCUIT COURT OF APPEALS**  
**FOR THE NINTH CIRCUIT.**

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In the United States Circuit Court of Appeals for  
the Ninth Circuit.

R. & H.

No. 3797.

THE IDAHO IRRIGATION COMPANY, LIMITED, THE EQUITABLE TRUST COMPANY OF NEW YORK, and LYMAN RHOADES as Trustees, and M. R. KAYS, Trustee, and FRANK T. DISNEY, OWEN J. BRENNAN, DAVE INGLE, W. B. JOY, JOHN F. INGLE, L. H. DYSART, H. J. LEYSON, GEORGE W. WEDGWOOD, E. L. TATE, OTTO SCHILD, W. S. SMITH, M. R. KAYS, E. G. MOLSEE, T. M. OSBORN, FRANK L. THOMAS, WM. ROSEBERRY, J. G. WILMOTH, W. D. FALES, R. W. HOUSTON, MRS. MONNIE CLINGER, STEVE BALLARD, ARTHUR W. GARRETT, GEORGE BOWMAN, GEORGE F. GOROW, BERT WYANT and LILLIE DALE WYANT, H. D. EDWARDS, MRS. J. C. SHAFER, A. H. BOWER, ELBERT SHERMAN, Z. T. SPELLMAN, J. M. SCOTT and DIONYSIUS B. KOUNTANIUS,

Appellants,

vs.

FRED W. GOODING, NOVINGER & DARRAH SHEEP COMPANY, LIMITED, a Corporation, T. B. JONES, J. H. CULBERTSON,

N. W. SINE, W. L. BIGGS, LOUIS JOHNSON, C. B. HESS and FRANK R. GOODING, and THE STATE OF IDAHO,

Appellees.

**Motion to Dismiss Appeal.**

Come now here the respondents, and move the Court to dismiss the appeal sought to be taken from the decree herein made and entered upon the 20th day of December, 1920, for the following reasons, viz.:

(a) That the Court is without jurisdiction to hear the appeal from the decree entered by the Court below on the 20th day of December, 1920, for the reason that the same was not taken and perfected within the time allowed by Section 1647 U. S. Compiled Statutes.

(b) That after the entry of the decree appealed from, the appellants, Idaho Irrigation Company, Limited, a corporation, The Equitable Trust Company of New York, a corporation, Lyman Rhoades and M. R. Kays, Trustees; and the intervening appellants, Owen J. Brennan, Frank T. Disney, L. H. Dysart, Otto Schild, H. D. Edwards and Mrs. C. J. Shafer and each of them, recognized the validity of, acted under and acquiesced in the said decree.

(c) That the appellants Idaho Irrigation Company, Ltd., a corporation, Equitable Trust Company, a corporation, Lyman Rhoades and M. R. Kays, Trustees, after the entry of said decree, accepted benefits under said decree.

(d) That the interveners and neither of them are proper appellants, or persons having a right to

appeal from the decree entered on December 20th, 1920.

This motion is made and predicated upon the Transcript, Records and files herein and upon the affidavit and certificates hereto attached as exhibits.

W. G. BISSELL,

W. T. STAFFORD,

BRANCH BIRD,

Residing at Gooding, Idaho,

KARL PAINE,

Residing at Boise, Idaho,

R. L. DUNN,

Residing at Oakley, Idaho,

Solicitors for Respondents.

**Affidavit of S. T. Baer.**

State of Idaho,

Lincoln County,—ss.

S. T. Baer, being duly sworn on his oath says: That he is the Secretary, Treasurer of Big Wood Canal Company, a corporation, formerly Big Wood River Reservoir and Canal Company Limited, a corporation, and that as such, he has the care, custody and control of the Corporate Records of said corporation.

That on the 1st day of September, 1921, Frank T. Disney and Owen J. Brennan made application for a permanent transfer of water under the provisions of Sec. 3052 et seq. Idaho Compiled Statutes, to be made appurtenant to the W.1/2 SE.1/4 Section 11, Twp. 5 South of Range 17 E., B. M., that such application was joined in by The Idaho Irrigation

Company, Limited, The Equitable Trust Company of New York, a Corporation and Lyman Rhoades, Trustees. That a true and full copy of such application as filed, and remains on file with this affiant as Secretary of Big Wood Canal Company, attested by the signature of this affiant and the seal of said corporation, is hereto attached marked Exhibit 1.

That on the 3d day of January, 1922, Frank T. Disney, made application for a permanent transfer of water under the provisions of Sec. 3052 et seq. Idaho Compiled Statutes, to be made appurtenant to the NW. $\frac{1}{4}$  NE. $\frac{1}{4}$  Section 14, Twp. 5 South of Range 17 E., B. M. That such application was joined in by the appellants aforesaid, that a true and full copy of such application as filed and remains on file with this affiant, as secretary of the Big Wood Canal Company, attested by the signature of this affiant and the seal of this corporation, is attached hereto marked Exhibit 2.

That on the 1st day of December, 1921, D. A. Nelson grantee of L. H. Dysart made application for a permanent transfer of water under the provisions of Section 3052 et seq. Idaho Compiled Statutes, to be made appurtenant to the SE. $\frac{1}{4}$  NW. $\frac{1}{4}$  and the E. $\frac{1}{2}$  SW. $\frac{1}{4}$  of Sec. 1, Twp. 7 South of Range 18 E., B. M. That such application was joined in by the appellants aforesaid, that a true and full copy of said application was filed and remains on file with the affiant, as secretary of the Big Wood Canal Company, attested by the signature of this affiant and the seal of this corporation, is attached hereto marked Exhibit 3.



That on the 8th day of October, 1921, H. D. Edwards made application for a permanent transfer of water under the provisions of Section 3052 et seq. Idaho Compiled Statutes, to be made appurtenant to the NE. $\frac{1}{4}$  NE. $\frac{1}{4}$  Section 7, Township 4, South of Range 19 E., B. M. That such application was joined in by the appellants aforesaid, that a true and full copy of such application as filed and remains on file with this affiant, as secretary of the Big Wood Canal Company, attested by the signature of this affiant and the seal of this corporation, is attached hereto marked Exhibit 4.

That on the 3d day of January, 1922, Mrs. C. J. Shafer made application for a permanent transfer of water under the provisions of Section 3052 et seq. Idaho Compiled Statutes, to be made appurtenant to the NE. $\frac{1}{4}$  NE. $\frac{1}{4}$  of Section 25, Twp. 4, South of Range 19 E., B. M. That such application was joined in by the appellants aforesaid, that a true and full copy of such application as filed and remains on file with this affiant, as secretary of the Big Wood Canal Company, attested by the signature of this affiant and the seal of this corporation, is attached hereto marked Exhibit 2.

That on the 1st day of August, 1921, Otto Schild made application for a permanent transfer of water under the provisions of Section 3052 et seq. Idaho Compiled Statutes, to be made appurtenant to the SE. $\frac{1}{4}$  NW. $\frac{1}{4}$  of Section 22, Twp. 6, South of Range 14 E., B. M. That such application was joined in by the appellants aforesaid, that a true and full copy of such application as filed and re-

mains on file with the affiant as secretary of the Big Wood Canal Company, attested by the signature of this affiant and the seal of this corporation is attached hereto marked Exhibit 6.

That on the 1st day of June, 1921, in like manner the said Idaho Irrigation Company applied for a permanent transfer of water represented by certificate number 4348 to certain other lands, as more fully appears from Exhibit 7 attached hereto and by this reference made a part hereof.

Your affiant further states that such applications were acted upon and allowed, and that the water was transferred to said land, and that certificate number 4936 was issued to and accepted by the said O. J. Brennan and Frank T. Disney in lieu of certificate number 4355 cancelled by the decree herein; that certificate number 4971 was issued to Frank T. Disney in lieu of certificate number 4210 cancelled by the decree herein; that certificate number 4964 was issued to D. A. Nelson grantee of L. H. Dysart in lieu of certificates numbers 4180 and 4183 cancelled by the decree herein; that certificate number 4945 was issued to H. D. Edwards in lieu of certificate number 4807 cancelled by the decree herein; that certificate number 4969 was issued to Mrs. C. J. Shafer in lieu of certificate number 4210 cancelled by the decree herein; that certificate number 4921 was issued to Otto Schild in lieu of certificate number 3908 cancelled by the decree within.

Affiant further says that he is the Treasurer of the Big Wood Canal Company, that under and pursuant to the laws of the State of Idaho, and the

resolutions of the Board of Directors of said Big Wood Canal Company duly entered and made on the 22d day of January, 1921, there was levied and assessed against each share of stock of said Big Wood Canal Company a maintenance charge of \$1.25; that the Idaho Irrigation Company, the Equitable Trust Company of New York, Lyman Rhoades and M. R. Kays, although the owners of approximately 12,352 shares of stock, failed and neglected to pay the assessment so levied and thereby withheld from the Big Wood Canal Company the sum of \$15,440, which sum would have been due and payable but for the entry of the decree in the case of Fred W. Gooding et al. vs. Idaho Irrigation Company et al.

S. T. BAER.

Subscribed and sworn to before me this 13th day of January, 1922.

[Seal]

JOHN E. BADLEY,

Notary Public, Residing at Shoshone, Idaho.

**Exhibit No. 1.**

(COPY)

Richfield, Idaho, August 30, 1921.

To the Honorable Board, Big Wood Canal Company, Richfield, Idaho.

We desire to make a permanent transfer of water stock from Certificate No. 4355 appurtenant to the NW. $\frac{1}{4}$  SE. $\frac{1}{4}$  and the NE. $\frac{1}{4}$  SW. $\frac{1}{4}$  Section 11, Township 7 S. Range 18 E., B. M. to

The West Half of the Southeast Quarter (W. $\frac{1}{2}$  SE. $\frac{1}{4}$ ) of Section 11, Township 5 South, Range 17 East, B. M.

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60 acres to be issued to Frank T. Disney and Owen J. Brennan.

5 shares to be issued to the Idaho Irrigation Company, upon the N.1/2 NE.1/4 Section 19, Township 4, S. Range 19 E., B. M.

Stock Certificate No. 4355 for 65 shares, hereto attached.

We attach hereto formal consent of the Idaho Irrigation Company and the formal consent of the Equitable Trust Company, to the above transaction and respectfully request that the transfer be made and new stock issued as outlined above.

Respectfully,

IDAHO IRRIGATION COMPANY, LTD.,

By (Signed) MURRAY BROOKMAN,

Vice-President.

(COPY)

State of Idaho,

County of Lincoln,—ss.

KNOW ALL MEN BY THESE PRESENTS, That so far as the interest of the Idaho Irrigation Company, Limited, the Equitable Trust Company of New York, and Lyman Rhoades, Trustees, appears in the above transaction, assent is hereby given to the foregoing transfer and assignment of sixty (60) shares of water stock in the Big Wood River Canal Company, to Frank T. Disney and Owen J. Brennan.

Dated at Richfield, Idaho, this 30th day of August, 1921.

IDAHO IRRIGATION COMPANY, LTD.,

By (Signed) MURRAY BOOKMAN,

Vice-President.

THE EQUITABLE TRUST COMPANY OF  
NEW YORK and

LYMAN RHOADES,

Trustees.

By (Signed) MURRAY BROOKMAN,

Their Agent.

(COPY)

WHEREAS, Application has been made by the Idaho Irrigation Company, Ltd., to transfer sixty-five (65) shares of stock, evidenced by Stock Certificate No. 4355 of the Big Wood River Reservoir and Canal Company, Ltd., now the Big Wood Canal Company, Ltd., from the NW.  $\frac{1}{4}$  SE.  $\frac{1}{4}$  and the NE.  $\frac{1}{2}$  SW.  $\frac{1}{4}$  of Sec. 11, T. 7 S., R. 18 E., B. M., and from lands owned by the Idaho Irrigation Company, Ltd., to the following described lands, and in the following manner:

To Frank Disney and Owen J. Brennan, sixty (60) shares to be appurtenant to the W.  $\frac{1}{2}$  SE.  $\frac{1}{4}$  of Sec. 11, T. 5 S., R. 17 E., B. M.

To the Idaho Irrigation Company, Ltd., five (5) shares to be appurtenant to the N.  $\frac{1}{2}$  NE.  $\frac{1}{4}$  of Sec. 19, T. 4 S., R. 19 E., B. M.

And it appearing that the law relating to such transfers having been complied with and that there are no unsatisfied mortgages or liens against the lands from which said water is to be transferred,

excepting those for which written consent of the lienholders have been filed with this company,

THEREFORE, be it resolved that the above transfer be consented to by the Board of Directors of the Big Wood Canal Company, to wit:

Consent is given to the transfer of sixty (60) shares of water from the N. $\frac{1}{2}$  SW. $\frac{1}{4}$  of Section 11, T. 7 S., R. 18 E., B. M., to the W. $\frac{1}{2}$  SE. $\frac{1}{4}$  of Section 11, T. 5 S., R. 17 E., B. M., and five (5) shares of water from the N. $\frac{1}{2}$  SW. $\frac{1}{4}$  of Section 11, T. 7 S., R. 18 E., B. M. to the N. $\frac{1}{2}$  NE. $\frac{1}{4}$  of Section 19, T. 4 S., R. 19 E., B. M.

That the applicant and grantees are to make such transfers without expense to the company and to make and provide proper ditches, headgates and works to divert and apply such water to the land last described, and that such water shall, upon such transfers, become appurtenant to such last above-described lands.

(Corp. seal and Secy.'s attest attached to original.)

**Exhibits Nos. 2 and 5.**

(COPY)

Richfield, Idaho, December 20, 1921.

To the Honorable Board, Big Wood Canal Company, Richfield, Idaho.

We desire to make a permanent transfer of thirty-five shares of water stock from Certificate No. 4210, appurtenant to the NW. $\frac{1}{4}$  SE. $\frac{1}{4}$  Section 30, Township 3, S. Range 19 E., B. M., to the persons and upon the lands following:

Rhoda M. Schafer ..... 11 shares  
upon part of NE.1/4 NE.1/4  
Sec. 25-4-19

Charles A. Giles ..... 4 shares  
upon NW.1/4 NW.1/4 Sec.  
33-4-19

Frank T. Disney ..... 20 shares  
upon NW.1/4 NE.1/4 Section  
14-5-17

Stock Certificate No. 4210 for 70 shares is hereto attached, and for the 35 remaining shares in the stock certificate, we desire a certificate issued to Louis Reaume, upon the SE.1/4 SE.1/4 Section 30-3-19, as described therein.

We attach hereto formal consent of the Idaho Irrigation Company and the Equitable Trust Company, to the above transaction and respectfully request that the transfer be made and new stock issued as outlined above.

· Respectfully,

IDAHO IRRIGATION COMPANY, LTD.

By (Signed) MURRAY BROOKMAN,  
Vice-President.

(COPY)

State of Idaho,  
County of Lincoln,—ss.

KNOW ALL MEN BY THESE PRESENTS,  
That so far as the interest of the Idaho Irrigation Company, Limited, the Equitable Trust Company of New York and Lyman Rhoades, Trustees, appears in the above transaction, assent is hereby given to the foregoing transfer and assignment of

630    *The Idaho Irrig. Co., Ltd., et al., vs.*

thirty-five shares of water stock in the Big Wood Canal Company to the following parties:

11 shares to Rhoda M. Schafer.

4 shares to Charles A. Giles.

20 shares to Frank T. Disney.

Dated at Richfield, Idaho, this 20th day of December, 1921.

IDAHO IRRIGATION COMPANY, LTD.

By (Signed) MURRAY BROOKMAN,

Vice-President.

THE EQUITABLE TRUST COMPANY OF  
NEW YORK and

LYMAN RHOADES,

Trustees.

By (Signed) MURRAY BROOKMAN,

Their Agent.

(COPY)

#### RESOLUTION.

WHEREAS, Application has been made by the Idaho Irrigation Company, Limited, to transfer 35 shares of water, being a part of the water evidenced by stock certificate Number 4210, which stock certificate represents a total of seventy shares of water stock in the Big Wood River Reservoir and Canal Company, Limited, now the Big Wood Canal Company, from the Northwest Quarter of the Southeast Quarter of Section 30, Township 3 S. Range 19 E., B. M., which land is owned by the Idaho Irrigation Company, to the persons and for use upon the lands hereinafter set forth.



And it appearing that the law relating to such transfers having been complied with and that there are no unsatisfied mortgages or liens against the lands from which said water is to be transferred, other than those for which written consents of the lienholders have been filed with said Board,

**THEREFORE, BE IT RESOLVED**, that the above transfer be consented to by the Board of Directors of the Big Wood Canal Company, to wit:

Consent is given to transfer from the NW. $\frac{1}{4}$  SE. $\frac{1}{4}$  Section 30, Township 3, S. Range 19 E., B. M. thirty-five shares of water to the persons, and for the lands following, to wit:

20 shares to Frank T. Disney, upon the NW. $\frac{1}{4}$  NE. $\frac{1}{4}$  Section 14, Township 5, S. Range 17 E., B. M.

4 shares to Charles A. Giles, upon the NW. $\frac{1}{4}$ -NW. $\frac{1}{4}$  Section 33, Township 4, S. Range 19 E., B. M.

11 shares to Rhoda M. Schafer, upon a part of the NE. $\frac{1}{4}$  NE. $\frac{1}{4}$  Section 25, Township 4. S. Range 19 E. B. M., described as follows:

A certain parcel of land, being that portion of the Northeast Quarter of the Northeast Quarter of Section 25, Township 4, S. Range 19 E., B. M., Lincoln County, lying to the North of the Oregon Short Line Railroad right of way and described as follows: Beginning at the intersection of the north line of the O. S. L. R. R. right of way with the north line of the above described forty acre tract; thence West along the north boundary line of said forty acre tract

to the northwest corner thereof; thence south along the west boundary line of said forty acre tract to an intersection with the north boundary line of the O. S. L. R. R. right of way; thence Northeast along said right of way line to the point of beginning. Said parcel of land containing eleven and five-tenths (11.5) acres, more or less.

That the applicant and the persons receiving said stock certificates are to make such transfers without expense to this Company and shall make and provide proper ditches, headgates, and works to divert and apply said water to the last described land and that such water shall upon such transfer become appurtenant to said last above-described land.

Dated this — day of —, 192—.

(Corp. seal and attest of Secy., appears on original.)

**Exhibit No. 3.**

(COPY)

Dietrich, Idaho, November 28, 1921.

To the Honorable Board, Big Wood Canal Company, Richfield, Idaho.

I desire to make permanent transfer of water stock from the North Half of Southwest Quarter, Sec. 22, Twp. 6 S., Range 14 E., B. M., which I own to the East Half of Southwest Quarter, and SE. $\frac{1}{4}$ -NW. $\frac{1}{4}$  Section 1, Twp. S. Range 18 E., B. M. which I own, and attach hereto abstract of title and deed, showing my title to the N. $\frac{1}{2}$  SW. $\frac{1}{4}$  Section 22-6-14.

I respectfully request that your Board consent to this transfer.

Yours truly,

(Signed) DAVID NELSON.

(COPY)

Richfield, Idaho, November 30, 1921.

Big Wood Canal Company,

Richfield, Idaho.

Gentlemen:

We hand you herewith stock certificates No. 4180 and No. 4183, for 80 shares of stock. Please reissue these certificates as follows:

One Certificate to David Nelson, for 25 shares upon the SE. $\frac{1}{4}$  NW. $\frac{1}{4}$  Section 1-7-18.

One Certificate to David Nelson, for 55 shares upon the E. $\frac{1}{2}$  SW. $\frac{1}{4}$  Section 1-7-18.

Please return the new certificates to this office and oblige.

Yours truly,

(Signed) A. J. LINDEMÉR,

Assistant Treasurer.

Enc.

S.

(COPY)

WHEREAS, Application has been made by David A. Nelson, to transfer eighty (80) shares of stock, evidenced by stock Certificates No. 4180 and 4183, of the Big Wood River Reservoir and Canal Company, Ltd., now the Big Wood Canal Company, from the North Half of the Southwest Quarter (N. $\frac{1}{2}$  SW. $\frac{1}{4}$ ) of Section 22, Township 6 S. Range

14 E., B. M., and from lands owned by David A. Nelson to the following described land, owned by David A. Nelson:

The East Half of the Southwest Quarter (E. $\frac{1}{2}$  SW. $\frac{1}{4}$ ) and the Southeast Quarter of the Northwest Quarter (SE. $\frac{1}{4}$  NW. $\frac{1}{4}$ ) of Section One (1), Township Seven (7), S. Range Eighteen (18) E., B. M.

And it appearing that the law relating to such transfer having been complied with and that there are no unsatisfied mortgages or liens against the land from which said water is to be transferred, excepting those for which written consent of the lienholders have been filed with this Company,

THEREFORE, Be it resolved that the above transfer be consented to by the Board of Directors of the Big Wood Canal Company, to wit:

Consent is given to the transfer of eighty shares (80) of water from the North Half of the Southwest Quarter, Section 22, Twp. 6 S. Range 14 E., B. M. to the E. $\frac{1}{2}$  SW. $\frac{1}{4}$  and SE. $\frac{1}{4}$  NW. $\frac{1}{4}$  Sec. 1, Twp. 7 S. Range 18 E., B. M.

That the applicant is to make such transfer without expense to the company and to make and provide proper ditches, headgates and works to divert and apply such water to the land last described, and that such water shall, upon such transfer, become appurtenant to such last above-described land.

(Original bears corp. seal and attest of Secy.)

**Exhibit No. 4.**

(COPY)

Richfield, Idaho, September 27, 1921.

To the Honorable Board, Big Wood Canal Company,  
Richfield, Idaho.

I desire to make permanent transfer of water stock from the SE. $\frac{1}{4}$  NW. $\frac{1}{4}$  Sec. 21-4-19, which I own, to the NE. $\frac{1}{4}$  NE. $\frac{1}{4}$  Section 7-4-19, which I own, and attach hereto Abstract of title and deed, showing my title to the SE. $\frac{1}{4}$  NW. $\frac{1}{4}$  Section 21-4-19.

I respectfully request that your Board consent to this transfer.

Yours truly,

(Signed) HENRY D. EDWARDS.

(COPY)

**RESOLUTION.**

WHEREAS, Application has been made by Henry D. Edwards, to transfer thirty-eight (38) shares of stock, evidenced by Stock Certificate No. 4807 of the Big Wood River Reservoir and Canal Company, Ltd., now the Big Wood Canal Company, from the Southeast Quarter of the Northwest Quarter (SE. $\frac{1}{4}$  NW. $\frac{1}{4}$ ) of Section 21, Township 4 S., Range 19 E., B. M., and from lands owned by Henry D. Edwards, to the following described land, owned by Henry D. Edwards:

The Northeast Quarter of the Northeast Quarter (NE. $\frac{1}{4}$  NE. $\frac{1}{4}$ ) Section 7, Township 4 S., Range 19 E., B. M.

And it appearing that the law relating to such transfer having been complied with and that there are no unsatisfied mortgages or liens against the land from which said water is to be transferred, excepting those from which written consent of the lienholders have been filed with this Company,

THEREFORE, Be it resolved that the above transfer be consented to by the Board of Directors of the Big Wood Canal Company, to wit:

Consent is given to the transfer of thirty-eight (38) shares of water from the SE.<sup>1</sup>/<sub>4</sub> NW.<sup>1</sup>/<sub>4</sub> Section 21, Township 4 S., Range 19 E., B. M. to the NE.<sup>1</sup>/<sub>4</sub> NE.<sup>1</sup>/<sub>4</sub> Section 7, Township 4 S., Range 19 E., B. M.

That the applicant is to make such transfer without expense to the Company and to make and provide proper ditches, headgates and works to divert and apply such water to the land last described, and that such water shall, upon such transfer, become appurtenant to such last above-described land.

(Original bears corp. seal and attest of Secy.)

**Exhibit No. 6.**

(COPY)

**APPLICATION FOR CONSENT TO TRANSFER  
CAREY ACT WATER RIGHT.**

To the Board of Directors of the Big Wood Canal Company:

Your petitioners, the undersigned, L. H. Craver, a bachelor, of Seattle, County of King, State of Washington, hereinafter called the Vendor, and Otto Schild of Gooding, County of Gooding, State

of Idaho, hereinafter called the Purchaser, each respectively represents and prays as follows:

That the said Vendor is the owner in fee simple of a good and clear title to the following lands and water rights situate in the County of Lincoln, State of Idaho, to wit:

Northeast Quarter of the Southwest Quarter (NE. $\frac{1}{4}$  SW. $\frac{1}{4}$ ) Section Thirty-two (32), Township Four (4) South, Range Sixteen (16) East, Boise Meridian. Together with all the water rights, ditch, dam and lateral rights appertaining thereto and represented by forty shares of the capital stock of the Big Wood Canal Company which shares of stock have heretofore been dedicated and made appurtenant to said lands.

That the said Purchaser is the owner in fee simple of a good and clear title to the following lands situated in the County of Gooding, State of Idaho, to wit:

The Southeast Quarter of the Northwest Quarter (SE. $\frac{1}{4}$  NW. $\frac{1}{4}$ ) Section Twenty-two (22), Township Six (6) South, Range Fourteen (14) East, Boise Meridian.

The said Purchaser further represents that his said land is within the same irrigation apportionment or segregation as Vendor's said lands, and that Purchaser's said land is arid in character but can be successfully irrigated and reclaimed by using said water right hereinbefore described and referred to as being appurtenant to said lands of Vendor upon Purchaser's said land.

That your petitioner desires to have said water rights above described transferred from the said lands of Vendor's to the said land of the Purchaser's.

That such transfer will not be detrimental to the irrigation system of the Big Wood Canal Company or prejudicial to the interest of its stockholders.

That in consideration of the permission of the Big Wood Canal Company to make transfer of said water right the undersigned, Purchaser, for himself, his heirs and assigns covenants and agrees to and with the said Big Wood Canal Company to pay all assessments or maintenance charges and other expenses that may be assessed against said shares of water stock by said Big Wood Canal Company, and that the lien for all such maintenance charges and expenses shall attach to Purchasers' land last above described to which the same are to be made appurtenant.

Your petitioners herewith submit for your examination a duly certified and compiled abstract of title to the lands herein mentioned and described, showing title as herein represented.

And your petitioners herewith submit a form of resolution which your petitioners respectively request that your Honorable Board pass and adopt as provided by law to the end that your petitioners may be able to consummate the transfer of said water right as herein requested.

Respectfully submitted this 14th day of July, 1921.

(Signed)    L. H. CRAVER.

(Signed)    OTTO SCHILD.



(COPY)

CERTIFICATE OF PASSAGE OF RESOLUTION  
AUTHORIZING TRANSFER OF CAREY  
ACT WATER RIGHT.

TO WHOM IT MAY CONCERN: This is to certify that at a regular meeting of the Board of Directors of the Big Wood Canal Company, a corporation existing under the laws of the State of Idaho, and operating an irrigation system in the State of Idaho, held pursuant to call and notice at the principal place of business of said corporation in the Town of Shoshone, Lincoln County, State of Idaho, on the 1st day of August, 1921, a quorum of the directors of said corporation being present, the following resolution was duly presented, passed and spread upon the records of said corporation, viz.:

RESOLUTION.

Be it resolved, that whereas L. H. Craver, a bachelor, being the present owner of forty (40) shares of the capital stock of the Big Wood Canal Company, as shown by the books and records of said company, which said stock represents a water right now appurtenant to the following described lands situate in the County of Lincoln, State of Idaho, and particularly described as follows, to wit:

Northeast Quarter of the Southwest Quarter  
(NE.  $\frac{1}{4}$  SW.  $\frac{1}{4}$ ) Section Thirty-two (32),  
Township Four (4) South, Range Sixteen (16)  
East, Boise Meridian.

has presented to this Board of Directors their request for permission to transfer said shares of stock to one, Otto Schild, of Gooding, State of Idaho, the owner or holder of evidence of title to the lands hereinafter described and for use upon and to become appurtenant to said land situate in the County of Gooding, State of Idaho, and particularly described as follows, to wit:

The Southeast Quarter of the Northwest Quarter (SE.  $\frac{1}{4}$  NW.  $\frac{1}{4}$ ) Section Twenty-Two (22), Township Six (6) South, Range Fourteen (14) East, Boise Meridian.

AND WHEREAS, the said Otto Schild represents that the lands to which he desires to make such water right appurtenant are arid in character but can be successfully irrigated and reclaimed by using said water right hereinbefore described as being appurtenant to the said lands first above described upon his said land; and that his said land is within the same irrigation apportionment of segregation as said lands first above described.

AND WHEREAS it appears that such transfer will not be detrimental to the irrigation system of the Big Wood Canal Company, nor prejudicial to the interest of its stockholders.

AND WHEREAS, the said Otto Schild, in consideration of permission of this Company to make such transfer of such water right, has agreed for himself, his heirs and assigns to pay all assessments for maintenance charges and other expenses that may be assessed against said shares of water stock by said Canal Company, and that the lien for all

such maintenance charges shall attach to his land last above mentioned and to which the same are to be made appurtenant.

NOW, THEREFORE, BE IT RESOLVED, that permission be and the same is hereby granted for the transfer of the said forty (40) shares of the capital stock of the Big Wood Canal Company as above set forth, subject to the following terms and conditions, to wit:

That the holders and owners of such shares of stock shall pay all assessments for maintenance charges and other expenses levied during the year during which this resolution was adopted and all other years thereafter that may be assessed against the same by said Big Wood Canal Company, and that the lien for all such maintenance charges and expenses shall attach to the last above described land, being the land to which the same are hereby made appurtenant.

IN WITNESS WHEREOF, the Big Wood Canal Company has caused this certificate to be sealed with its corporate seal and signed by its duly authorized officers this 2d day of August 1921.

BIG WOOD CANAL COMPANY.

By (Signed) FRED W. GOODING,

President.

[Seal]

Attest: (Signed) S. T. BAER,

Secretary.

State of Idaho,

County of Lincoln,—ss.

On this 2d day of August in the year 1921, before

me, John E. Badley, a Notary Public, in and for said State, personally appeared S. T. Baer, known to me to be the Secretary of the corporation that executed the foregoing instrument, and acknowledged to me that such corporation executed the same.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my official seal, the day and year in this certificate first above written.

[Seal]            (Signed) JOHN E. BADLEY,  
Notary Public, in and for the State of Idaho, Residing at Richfield, Idaho.

**Exhibit No. 7.**

(COPY)

Richfield, Idaho, June 1, 1921.

To the Honorable Board, Big Wood Canal Company, Richfield, Idaho.

We desire to make a permanent transfer of water stock from Certificate No. 4348, appurtenant to the N.  $\frac{1}{2}$  SE.  $\frac{1}{4}$  Section 28, Township 4 S. Range 19 E., B. M., to

NW.  $\frac{1}{4}$  SW.  $\frac{1}{4}$  of Section 13, NE.  $\frac{1}{4}$  SE.  $\frac{1}{4}$  of Section 14, Township 5 S. Range 14, E. B. M. 74 shares, to be issued to F. K. Rice 6 shares, to be issued to Idaho Irrigation Company in a balance certificate.

We attach hereto formal consent of the Idaho Irrigation Company and the formal consent of the Equitable Trust Company, to the above transaction,

and respectfully request that the transfer be made and new stock issued as outlined above.

Respectfully,

IDAHO IRRIGATION COMPANY, LTD.

By (Signed) MURRAY BROOKMAN,

Vice-President.

(COPY)

State of Idaho,

County of Lincoln,—ss.

KNOW ALL MEN BY THESE PRESENTS, that so far as the interest of the Idaho Irrigation Company, Limited, the Equitable Trust Company of New York, and Lyman Rhoades, Trustees, appears in the above transaction, assent is hereby given to the foregoing transfer and assignment of seventy-four (74) shares of water stock in the Big Wood River Canal Company, to F. K. Rice.

Dated at Richfield, Idaho, this first day of June, 1921.

IDAHO IRRIGATION COMPANY, LTD.

By (Signed) MURRAY BROOKMAN,

Vice-President.

THE EQUITABLE TRUST COMPANY

OF NEW YORK and

LYMAN RHOADES,

Trustees,

By (Signed) MURRAY BROOKMAN,

Their Agent.

(COPY)

RESOLUTION.

Whereas, application has been made by the Idaho Irrigation Company, Limited, to transfer eighty

shares of water evidenced by stock certificate No. 4348, which said stock certificate represents shares of water stock of the Big Wood River Reservoir and Canal Company, Limited, now the Big Wood Canal Company, from the lands therein described and owned by the Idaho Irrigation Company, Limited, to the persons and for use upon the land hereinafter set forth, and it appearing that the law relating to such transfers has been complied with and that there are no unsatisfied mortgages or liens against the land from which said water is to be transferred other than those for which written consents of the lienholders have been filed with said Board.

THEREFORE, Be It Resolved, that the above transfer be consented to by the Board of Directors of the Big Wood Canal Company, to wit: Consent is given to transfer from the

North Half of the Southeast Quarter (N.  $\frac{1}{2}$  SE.  $\frac{1}{4}$ ) of Section 28, Township 4 South, Range Nineteen E., B. M.

eighty shares of water to the persons and for the lands following, to wit:

Seventy-four shares to F. K. Rice upon the NW.  $\frac{1}{4}$  SW.  $\frac{1}{4}$  of Section 13, and the NE.  $\frac{1}{4}$  SE.  $\frac{1}{4}$  Section 14, both in Township 5, S. Range 14 E., B. M.

Six shares to the Idaho Irrigation Company, upon the North Half of the Northeast Quarter (N.  $\frac{1}{2}$  NE.  $\frac{1}{4}$ ) of Section 19, Township 4, S. Range 19 E., B. M.

That the applicant and the persons receiving the stock certificates are to make such transfers without expense to this Company and shall make and provide proper ditches, headgates and works to divert and apply said water to the last described land and that such water shall upon such transfer become appurtenant to said last above described land.

(Original bears corp. seal and attest of Secy.)

[Endorsed]: Motion to Dismiss Appeal. Filed February 7, 1922. F. D. Monckton, Clerk.

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In the United States Circuit Court of Appeals for  
the Ninth Circuit.

No. 3797.

THE IDAHO IRRIGATION COMPANY, LIMITED, THE EQUITABLE TRUST COMPANY OF NEW YORK and LYMAN RHOADES, as Trustees, and M. R. KAYES, Trustee (Defendants), and FRANK T. DISNEY et al. (Intervenors),

Appellants,

vs.

FRED W. GOODING, NOVINGER & DARRAH SHEEP COMPANY, LIMITED, a Corporation, T. B. JONES, J. H. CULBERTSON, N. W. SINE, W. L. BIGGS, LOUIS JOHNSON, C. B. HESS and FRANK B. GOODING (Plaintiffs), and THE STATE OF IDAHO (Intervenors),

Appellees.

**Motion of Frank T. Disney et al. for Relief Pending  
Final Determination of Case.**

Now come the appellants, Frank T. Disney et al., interveners in the above-entitled cause, and move the Court for an order staying the provisions of the decree herein, prohibiting the delivery of water to said interveners, pending the final determination of this cause, upon such terms as to the court may seem meet and proper.

This motion is based upon the record on the appeal herein, and is made pursuant to the notice contained in the brief of these interveners.

Dated this 14th day of February, 1922.

E. D. REYNOLDS.  
RICHARDS & HAGA.

[Endorsed]: Motion of Frank T. Disney et al,  
For Relief Pending Final Determination of Case.  
Filed February 14, 1922. F. D. Monckton, Clerk.

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At a stated term, to wit, the October term, A. D. 1921, of the United States Circuit Court of Appeals for the Ninth Circuit, held in the courtroom thereof, in the City and County of San Francisco, in the State of California, on Tuesday, the fourteenth day of February, in the year of our Lord one thousand nine hundred and twenty-two. Present: The Honorable ERSKINE M. ROSS, Circuit Judge Presiding; The Honorable WILLIAM W. MORROW, Circuit Judge; The Honorable WILLIAM H. HUNT, Circuit Judge.



No. 3797.

THE IDAHO IRRIGATION COMPANY, LIMITED, et al.,

Appellants,

vs.

FRED W. GOODING et al.,

Appellees.

**Order of Submission, Etc.**

ORDERED motion of appellees filed February 7, 1922, and motion of Frank T. Disney et al., for relief pending final determination of cause, filed February 14, 1922, and the cause on merits argued by Mr. Oliver O. Haga, Counsel for the appellants The Equitable Trust Company of New York, Lyman Rose, M. R. Kayes, Trustees, and by Mr. Edward A. Walters, counsel for the appellant, The Idaho Irrigation Company, Limited, and by Mr. W. G. Bissell, counsel for the appellees, and submitted to the Court for consideration and decision, with leave to counsel for the appellees to file a reply brief within ten (10) days from date, and with leave to Mr. Haga to file a reply thereto in ten (10) days thereafter.

At a stated term, to wit, the October term, A. D. 1921, of the United States Circuit Court of Appeals for the Ninth Circuit, held in the courtroom thereof, in the City and County of San Francisco, in the State of California, on Monday, the seventh day of August, in the year of our Lord one thousand nine hundred and twenty-two. Present: The Honorable WILLIAM W. MORROW, Circuit Judge, Presiding; The Honorable WILLIAM H. HUNT, Circuit Judge.

IN THE MATTER OF THE FILING OF CERTAIN OPINIONS AND OF THE FILING AND RECORDING OF CERTAIN JUDGMENTS AND DECREES.

By direction of the Honorable Erskine M. Ross, William W. Morrow, and William H. Hunt, Circuit Judges, before whom the causes were heard, ORDERED that the typewritten opinion this day rendered by this Court in each of the following entitled causes be forthwith filed by the Clerk, and that a Judgment of Decree be filed and recorded in the Minutes of this Court in each of the said causes in accordance with the opinion filed therein:  
 \* \* \* The Idaho Irrigation Company, Limited, et al., Appellants, vs. Fred W. Gooding et al., Appellees. No. 3797. \* \* \*

In the United States Circuit Court of Appeals for  
the Ninth Circuit.

No. 3797.

THE IDAHO IRRIGATION COMPANY, LIMITED, THE EQUITABLE TRUST COMPANY OF NEW YORK, and LYMAN RHOADES as Trustees, and M. R. KAYES, Trustee (Defendants), and FRANK T. DISNEY et al. (Interveners),

Appellants,

vs.

FRED W. GOODING, NOVINGER & DARRAH SHEEP COMPANY, LIMITED, a Corporation; T. B. JONES, J. H. CULBERTSON, N. W. SINE, W. L. BIGGS, LOUIS JOHNSON, C. B. HESS and FRANK R. GOODING (Plaintiffs),

Appellees,

and

THE STATE OF IDAHO (Intervener),

Appellee.

Upon Appeal from the United States District Court  
for the District of Idaho, Southern Division.

**Opinion U. S. Circuit Court of Appeals.**

IN EQUITY: Suit to restrain the Idaho Irrigation Company, the Equitable Trust Company of New York, and Lyman Rhoades, as Trustees for the bondholders of the Idaho Irrigation Company, and M. R. Kayes as Trustee, holding legal title to certain shares of stock in the Big Wood River Reservoir & Canal Company, from making further sales of shares of stock in that Company, and from issuing further contracts for the sale of water rights.

The State of Idaho, Intervener, joins in asking that the prayer of plaintiff's complaint be granted.

Decree for plaintiffs. Defendant's appeal.

WALTERS & HODGIN, RICHARDS & HAGA,  
and E. D. REYNOLDS, Attorneys for Appel-  
lants.

W. G. BISSELL, W. T. STAFFORD, KARL  
PAINE, ROY L. BLACK, and DEAN DRIS-  
CILL, Attorneys for Appellees.

Before ROSS, MORROW, and HUNT, Circuit  
Judges.

MORROW, C. J.—This is another controversy growing out of the system of reclamation of desert land in certain public land states provided by the Act of August 18, 1894, known as the Carey Act (28 Stat. 372, 422), as amended by the Act of June 11, 1896 (29 Stat. 413, 434).

The public lands involved in this case are located in the State of Idaho, and the statutes of that State relating to the appropriation of water for the co-operating scheme in reclaiming the desert lands of the State are found in Sections 1613 to 1634 of the Revised Codes of Idaho of 1908 (Compiled Stats. of Idaho, 1919, Chaps. 136 to 141, Secs. 2996-3068). The plaintiffs are owners of 4,596 acres of land located under the Carey Act and embraced within the segregated area of the Idaho Irrigation Company, with an equal number of shares of stock in the Big Wood River Reservoir & Canal Company. The latter Company is the operating company mentioned in certain contracts between the State of Idaho and the Irrigation Company and contracts between the Idaho Irrigation Company and the purchasers of lands within the segregated area. It is alleged in the complaint that the plaintiffs, together with all other settlers upon the project of the Idaho Irrigation Company, are interested in the outcome of this suit.

This case, like many others of the same general character, presents questions difficult of adjustment in the administration of the desert land laws for different localities, giving rise to controversies between the parties, to determine the just and equitable rights of each. If there is a failure in this respect anywhere in the procedure, it is not necessarily because of lack of good faith in the conduct of the parties, or lack of careful investigation on the part of the officials; but it is rather by reason of the diverse conditions under which desert lands

can be reclaimed in the different localities of the desert region. The experience of one locality in administering the law may be wholly inapplicable in another, requiring a new adjustment of rights and duties with respect to the new and unexpected conditions.

The appellant, The Idaho Irrigation Company, a defendant in this suit, is a corporation organized under the laws of the State of Idaho, and by its articles of incorporation, authorized to engage in various enterprises, including that of the construction of irrigation works, buying and selling water rights, and the operation of water systems.

In 1906 the defendant made proposals to the executive officers of the State of Idaho, through the State Board of Land Commissioners, for the purpose of forming a project to construct irrigation works for the reclamation of certain desert lands in the State of Idaho, under the terms of the Carey Act and the laws of the State of Idaho, accepting the conditions of the Carey Act and providing for the appropriation of water for the reclamation of such lands. In accordance with these proposals, the State Board of Land Commissioners on August 15, 1907, resolved to enter into a contract with the defendant for the construction of the irrigation works mentioned in the proposals, and on August 21, 1907, the State did enter into such contract for the reclamation of public lands described in certain lists filed with the State Board of Land Commissioners as follows: April 2, 1907,—40,821.31 acres; May 14, 1907,

—1,440.85 acres; May 16, 1907,—12,436.41 acres; July 8, 1907,—55,018.60 acres. These lands, designated for segregation by the Secretary of the Interior for and on behalf of the United States, aggregated 109,717.17 acres. In a subsequent list, filed December 9, 1908, there was a further addition to the project of reclaiming desert lands aggregating 50,297.07 acres, and on February 3, 1910, there was a still further selection of land, aggregating 7,743.17 acres, making a total of 167,757.41 acres of land, segregated by the Secretary of the Interior for the project.

The contracts entered into between the defendant and the State of Idaho provided a number of conditions incident to such contracts, among others, that the defendant would construct a dam, reservoir, and irrigation system, as described in the contracts, and would sell shares of water rights in said reservoir and irrigation system from time to time to persons filing upon portions of the lands under the Carey Act and described and referred to in the contracts. The original cost of the proposed works was estimated at \$2,000,000; an additional cost for the enlargement provided in the supplemental agreement was estimated at \$650,000; and the estimated cost of the proposed enlarged irrigation works was increased to \$3,000,000.

It was recited in the original contract that it was understood that the defendant was the owner of a right to divert from Big Wood River and Malad River 3,000 cubic feet of water per second of time under a permit numbered 1817, issued

by the State Engineer of Idaho. In the supplemental agreement, it was recited that it was understood that the defendant was the owner of an additional right to divert from Big Wood and Malad Rivers 3,000 cubic feet of water per second of time under a second permit numbered 3818, issued by the State Engineer of Idaho. In both agreements it was provided that the defendant agreed to furnish and deliver to owners of shares in said reservoir and irrigation system, as specified in the other provisions of the contract, all of said appropriated waters to which the said defendant was entitled to the extent of one-eightieth ( $1/80$ ) of one cubic foot per second of time per acre. It was also provided that as soon as the lands were ordered thrown open for settlement, a corporation, known as the Big Wood River Reservoir & Canal Company would be formed at the expense of the defendant; the articles of incorporation to be in a form to be provided by the Attorney General of the State; the authorized capital stock of the corporation should be one hundred twenty-five thousand (125,000) shares, which amount was intended to represent one share for each acre of land which might be irrigated from said canal.

In the supplemental contract, the capital stock of the corporation was to be one hundred and fifty thousand (150,000) shares.

It was further provided that the certificates of shares in the corporation should be made to indicate and define the interest thereby represented in said system, to wit, a water right of one-eightieth ( $1/80$ )



cubic feet per second for each acre, and the proportion in said reservoir and irrigation system based upon the number of shares ultimately sold them.

It was also provided that the defendant would sell, or cause to be sold, to the person or persons filing upon any of the land described in the contract susceptible of irrigation, a water right, or share in said canal for each and every acre filed upon or purchased from the State, or acquired from the United States, but in no case should water rights or shares be dedicated to any of the lands mentioned, or sold beyond the carrying capacity of the said canal system, or in excess of the appropriation of water, as mentioned in the contract.

It was further provided that the defendant would prosecute the work in said reservoir and irrigation system diligently and continue to do so, and would supply water to the lands by certain dates mentioned, and would complete the entire irrigation works within five years from the date of the original agreement, which was on or before August 21, 1912, at which last mentioned date the obligation to furnish the full one-eightieth ( $1/80$ ) of a cubic foot of water per second of time per acre should be in full force and effect.

It was further provided that the lands referred to in the contracts were donated by the Act of Congress to the State of Idaho under the Carey Act, for the irrigation and reclamation of which lands the contracts were designed to affect. The form

of an agreement was provided to be entered into between the Idaho Irrigation Company, the defendant herein, and the purchaser of stock in the Big Wood River Reservoir & Canal Company, the operating company formed by the defendant for the purpose of carrying into effect its contract with the State.

Pursuant to these agreements, the Secretary of the Interior, for and on behalf of the United States, entered into an agreement with the Governor of the State of Idaho for and on behalf of the State of Idaho, providing that the Secretary of the Interior would bind the United States to donate, grant, and patent to said State, or to its assigns, any particular tract or tracts of said land whenever an ample supply of water should be actually furnished in a substantial ditch or canal, or by artesian wells or reservoirs, to reclaim the same, in accordance with the provisions of the Acts of Congress, and with the regulations issued thereunder, and with the terms of the contract.

The Act of Congress referred to expressly declared that its purpose was to aid the public land states in the reclamation of desert lands therein, and in the settlement, cultivation, and sale thereof in small amounts to actual settlers. To carry this purpose into effect, it was provided, among other things, that before the application of any such state was allowed, or any contract was executed, or any segregation of any of the desert lands from the public domain was ordered by the Secretary of the Interior, such state should file a map

of the land proposed to be irrigated, together with a plan showing the mode of the contemplated irrigation, which plan should be sufficient to thoroughly irrigate and reclaim said desert lands and prepare it to raise ordinary agricultural crops; and also show the source of the water to be used for its irrigation and reclamation. Thereafter, the defendant proceeded to construct an irrigation system and to sell and contract to sell water rights to the various settlers, among whom are the plaintiffs in this case. In January, 1912, the State of Idaho made application to the Secretary of the Interior for a patent to the lands included in the Idaho irrigation project, submitting proof of water supply and its appropriation by the state for the lands to be irrigated.

The State Engineer certified that, in his opinion, an ample supply of water for the reclamation of all these lands was actually furnished in a substantial reservoir and canal, and in a sufficient quantity to reclaim the lands in question from their arid character, as contemplated in the Carey Act, and that the State of Idaho was warranted in making the application to the Secretary of the Interior, asking that a patent issue forthwith for the lands embraced in the accompanying lists. Such proceedings were thereupon had in the Department of the Interior that the area of the project was fixed at 117,677.24 acres; and on February 19, 1915, the patent of the United States was issued therefor and delivered to the State of Idaho.

It was provided in the patent that the grant was

made to the State for the purposes specified in the Carey Act, as amended, and subject to all the conditions, restrictions, and limitations therein prescribed, and with power to convey the same in fee simple in accordance with the provisions of said act.

On December 7, 1917, the plaintiffs commenced this suit in the District Court of the State, which, upon a proper showing, was removed to the United States District Court for the District of Idaho.

The complaint sets forth the organization of the defendant and its irrigation system, the organization of the Big Wood River Reservoir & Canal Company as the operating company for the defendant, the sale to settlers of water rights to be used for the reclamation and irrigation of lands within the segregated area, and evidenced by shares of stock in the latter company.

It was alleged in the complaint that the contract hereinbefore referred to provided that the said defendant should sell water rights of one-eightieth ( $1/80$ ) of one cubic foot per second of time per acre for the irrigation and reclamation of said land, and that it should construct irrigation works of such capacity as to be able, in fact, to deliver and furnish one-eightieth ( $1/80$ ) of one cubic foot per second of time per acre of land for each acre of land within said segregation; that the certificates of stock in the Big Wood River Reservoir & Canal Company should entitle the purchaser thereof to receive one-eightieth ( $1/80$ ) of a cubic foot of water

per second of time per acre, and a proportionate interest in the irrigation works and system.

It was further alleged that the contract limited the rights of the defendant to the sale of a number of shares of capital stock in the Big Wood River Reservoir & Canal Company to the capacity of the system to furnish and distribute water in accordance with the contract, and to the actual appropriation of water available for irrigation purposes, and that under and by virtue of the terms of the said contracts when the defendant had in fact sold shares in said company, such shares would represent the actual amount of water available and appropriated, and when said sale of shares should equal the carrying capacity of said irrigation system, then, and in that instance, the defendant would make no further sales of water rights by means of selling and issuing shares of stock in said Big Wood River Reservoir & Canal Company. These allegations of the complaint were admitted in defendant's answer.

It was further alleged in the complaint that said land required the application thereto of at least five-eighths ( $\frac{5}{8}$ ) of a cubic inch of water per acre per second of time, or one eightieth ( $\frac{1}{80}$ ) of one cubic foot of water per second of time for each acre during the irrigation season for the successful irrigation and reclamation and cultivation thereof, and for the raising of ordinary agricultural crops thereon; and that with a less amount of water than said one-eightieth ( $\frac{1}{80}$ ) of one cubic foot per second of time per acre of land during the irrigation season, such lands were worthless and valueless for

agricultural purposes and for the purpose of raising ordinary agricultural crops.

In an amendment to Paragraph 20 of the complaint allowed by the Court, it was alleged that the total available water supply of the defendant, actually existing, actually appropriated, and available for distribution to the contract holders on lands in said project at the headgate of the contract holders was 122,817 acre-feet, which said amount of water would, at the contract rate of five-eighths ( $\frac{5}{8}$ ) of a miner's inch per acre during the statutory irrigation season, furnish and supply water for the irrigation of 40,939 acres, and no more; that is to say, that the irrigation and cultivation of 40,939 acres and the application thereto of one-eightieth of one cubic foot of water per second of time per acre of land for the statutory irrigation season, beginning April 1st and ending October 31st, would exhaust the entire appropriation and available water supply of the defendant.

The defendant, in its answer, averred that it had sold water rights to the total amount of approximately eighty-seven thousand two hundred thirty-three and seventy-six hundredths (87,233.76) shares; that there remained unsold, within said segregated area, and susceptible of irrigation from said system, a total acreage of approximately twenty-five thousand six hundred thirty-eight (25,638) acres, and that the total supply of water appropriated and available for distribution to said system was sufficient to enable defendants to furnish and deliver

an ample supply of water to all the lands then remaining in the segregation.

The defendant set up a further defense that the proceedings before the Land Office at Washington and the Secretary of the Interior on the issuance of a patent by the United States for one hundred seventeen thousand six hundred seventy-seven and twenty-four hundredths (117,677.24) acres constituted a determination by the State of Idaho and the Secretary of the Interior of the water supply of the defendant and of the capacity of the irrigation works constructed by the defendant, and that such determination was conclusive and binding upon the Court.

Upon the filing of the complaint in this action, a *lis pendens* was also filed for record with the recorders of the counties in which the property is situated.

The object of the suit was alleged to be: To restrain the defendants from selling, disposing of, or transferring upon the books of the company any of the shares of the capital stock of the Big Wood River Reservoir & Canal Company, which they then held as assets of the Idaho Irrigation Company, and as trustees for the benefit of the bondholders of said corporation, and that the defendant, and all persons acting for it, its agents, officers, and employees, be permanently enjoined and restrained from issuing any more or further contracts for the sale of water rights, or from selling, disposing of, or transferring any of the shares of the Big Wood

River Reservoir & Canal Company, which it now owns or controls.

The case was tried by the Court upon testimony of witnesses taken orally in open court, as provided by Equity Rule No. 46, and upon the evidence furnished by charts and other exhibits introduced in evidence relating to the water supply and distribution, furnished by the defendant and distributed to the lands included in the project. The evidence is conflicting as to the amount of water required during the irrigation season for the successful irrigation, reclamation, and cultivation of the lands included in the project. Upon the conclusion of the testimony, the Court entered an order reciting: "Whereupon, with the approval of the Court, it was stipulated and agreed that the pleadings may be deemed amended to conform to the proof."

The evidence is stated under Equity Rule No. 75, providing for a condensed record of the trial.

An examination of the evidence contained in the record shows that the proof on the part of the plaintiff conforms substantially to the plaintiffs' amendment to Paragraph 20 of the complaint, heretofore referred to. The opinion and decree of the Court follows this amendment to plaintiffs' complaint, holding that the defendant's average available water resources from 1911 to 1919 were 122,817 acre-feet, and that the reservoir on July 19, 1920, (the date of the opinion and decree) was then empty; but the Court held in its opinion that it was not necessary to find, and hence it did not attempt to determine, the exact amount of water available



for defendant's use. "It was sufficient," the Court said, "to know that with the duty hereinbefore recognized, the supply is, and will be, insufficient to meet the demands of the outstanding contracts, exclusive of those involved in this suit, and I have no hesitation in so finding."

The prayer of the complaint was thereupon granted, and a decree entered, enjoining the defendant from selling, transferring, or otherwise disposing of any of the shares of the capital stock of the Big Wood River Reservoir & Canal Company, which they, or any of them, held as assets of the defendant company at the date of the commencement of this suit on December 7, 1917, or which had been acquired by them, or any of them, since that date. And the defendant, the Idaho Irrigation Company, its agents and employees, were perpetually enjoined and restrained from selling, transferring, or otherwise disposing of water rights owned, held, or controlled by it at the date of the commencement of this suit, or acquired since said date, in the irrigation system constructed by said defendant, or from issuing contracts for the sale thereof; that all water rights sold by the defendants, or any of them, in said irrigation system, and all contracts for the sale of water rights issued by defendants, or any of them, for the irrigation of certain lands described, were decreed to be of no effect, and all shares of the capital stock of the Big Wood River Reservoir & Canal Company, issued in connection with such sales, or the issuance of such contracts were declared to be of no effect.

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Other provisions of the decree are not material to the questions presented to this Court.

The defendants have appealed from this decree and the plaintiffs have interposed a motion for the dismissal of the appeal on the ground that the Court was without jurisdiction, for the reason that the appeal was not taken in time, and for the further reason that after the entry of the decree, the defendants and certain interveners recognized the validity of the decree, acted under it, and acquiesced in its terms, defendants accepting benefits thereunder, and that the interveners have no right of appeal from the original decree.

The final decree was entered December 20, 1920. The defendants filed a petition for a rehearing February 12, 1921, within the term in which the decree was entered. The petition was entertained by the Court, and on May 7, 1921, the Court made and entered an order overruling and denying defendant's petition for a rehearing, after having amended the decree in certain particulars.

The appeal was taken August 12, 1921, within six months after the denial of the motion for rehearing.

In *Aspen Mining & Smelting Co. vs. Billings*, 150 U. S. 31-36, the Court said:

"The rule is that if a motion or a petition for rehearing is made or presented in season and entertained by the Court, the time limited for a writ of error or appeal does not begin to run until the motion or petition is disposed of. Until then the judgment or decree does not

take final effect for the purposes of the writ of error or appeal. \* \* \*

“If this petition for rehearing was filed in season and entertained by the Court, then the decree, although entered in form, did not discharge the parties from their attendance in the cause, and they were bound to follow the petition thus pending to the next term. The suit was thereby prolonged until the application was disposed of in the regular course of proceeding.”

In *Alexander vs. United States*, 57 Fed. 828-831, this Court said:

“In *Brockett vs. Brockett*, 2 How. 238, it was held that a petition for a rehearing filed during the term and actually entered by the court suspended the operation of a decree in equity until the petition was disposed of.”

The Court cites other cases to the same effect.

The appeal in the present case was taken in time, and this Court has jurisdiction to review the proceedings.

It is contended by the plaintiffs that the defendants and certain interveners have deprived themselves of the right of appeal by recognizing the validity of the decree, acting under it, and acquiescing in its terms. This contention is based upon the fact that the defendants and certain interveners have participated in the transfer of water rights from lands entitled to water under the decree to lands that are excluded from the project by the decree. The right to make such transfers, it

is claimed, is authorized by Chapter 139 of the Idaho Compiled Statutes of 1919, providing for the transfer of a water right appurtenant to land entered under the Carey Act, and a paragraph of the decree providing "that it shall not be considered a violation of the injunction herein issued if the Idaho Irrigation Company transfers shares of stock appurtenant to land now entitled to receive water to any land described in this decree, such transfer to be made upon a basis of acre for acre and share for share, and the total burden on the system being not thereby increased."

The reason given for the transfers is that they were made to protect growing crops during the appeal; that the interveners were forced to either suffer great loss during the pendency of the appeal, or secure a transfer of water rights from uncultivated lands to lands that had been improved; that such transfers did not increase the total burden of water delivery upon the system, and did not, in any way, act as a waiver of their right of appeal upon the question whether or not the defendant, the Irrigation Company, had sold shares of water stock in the Big Wood River Reservoir & Canal Company equal to or in excess of the carrying capacity of the defendant's irrigation system, and that the further sales of water rights should be enjoined.

The right to transfer a water right from one tract of land to another under the state statute is no part of this controversy, but assuming that it is, in our opinion the rule referred to was not intended to control such a proceeding as the one

with which we are now dealing. Erwin vs. Lowry, 7 How. (48 U. S.) 173, 184; Embry vs. Palmer, 107 U. S. 3; Reynes vs. Dumont, 130 U. S. 354, 394.

We are of the opinion that neither the defendants nor the interveners waived their right of appeal in this proceeding.

It is objected that the interveners are not proper appellants, and have no right to appeal from the decree entered December 20, 1920. This appeal is, however, from the decree as amended May 7, 1921.

The interveners, in their complaint, filed by leave of the Court February 12, 1921, and in their amended complaint filed March 21, 1921, alleged that they had no actual knowledge of the filing of the *lis pendens* by the plaintiff at the commencement of the suit, or of the nature or scope of the suit as determined by the decree of December 20, 1920; that they at all times understood and assumed that the suit was for the purpose of enjoining the defendants from selling any of the unissued stock of the Big Wood River Reservoir & Canal Company, and the interveners alleged that they did not know or understand that the suit involved the cancellation of any stock or water rights theretofore issued by that Corporation and made appurtenant to the land of the interveners; that no preliminary or temporary injunction or restraining order had been issued, enjoining or restraining the defendants from selling any of the shares of stock or water rights or land owned by the defendants; that the decree of December 20, 1920, seriously affected the rights of the interveners, although they were not

parties to that suit; that the decree purported to cancel and annul all contracts for the sale of water rights issued by the defendants for the lands owned by various persons who were not parties to suit, and who were situated substantially as the interveners.

On March 31, 1921, plaintiffs moved the Court to strike out certain portions of the complaint in intervention, from which it appears that it was conceded by the plaintiffs that under a proviso of the decree of December 20, 1920, certain lands described should be eliminated from the list of lands specifically described in the decree, and it was so ordered.

The plaintiffs, at the same time, filed a motion to strike out, or dismiss, all the remaining paragraphs of the complaint in intervention, with two exceptions.

On April 6, 1921, the Court entered an order denying relief to the interveners, and thereafter, on May 7, 1921, the Court entered its amended decree.

The decree, as amended and entered by the Court on May 7, 1921, enjoined the interveners from receiving any water for the irrigation of their lands described in their complaint in intervention. Their title to water rights claimed by them was adjudicated and cancelled by the decree. This title to water was an interest in property, the use and enjoyment of which they were deprived by the decree.

We think these facts entitled the interveners to appeal to this Court.

The remaining questions are upon the merits. The controlling question is this: Had the defendant, the Idaho Irrigation Company, on December 7,

1917, when this suit was commenced, sold shares of water stock in the Big Wood River Reservoir & Canal Company, representing in the aggregate the full amount of water available and appropriated for the reclamation of the desert lands in the Idaho Irrigation project, in which the plaintiffs were purchasers.

The contract between the defendant, the Idaho Irrigation Company, and the State of Idaho, and between the defendant, the Idaho Irrigation Company, and the plaintiffs was that it would sell water stock of one-eightieth ( $1/80$ ) of one cubic foot per second of time per acre for the irrigation and reclamation of said land, and that it would construct irrigation works of such capacity as to be able in fact to deliver and furnish one-eightieth ( $1/80$ ) of one cubic foot of water per second of time per acre of land for each acre of land within the project.

It was alleged in the complaint and admitted by the defendants at the trial that said irrigation contract limited the rights of the said Idaho Irrigation Company to the sale of a number of the shares of the capital stock of the said Big Wood River Reservoir & Canal Company to the capacity of the system to furnish and distribute water in accordance with the contract, and to the actual appropriation of water available for irrigation purposes; that under and by virtue of the terms of the said contract when the said Idaho Irrigation Company had, in truth and in fact, sold shares in said Company, which should and did represent the actual amount of water available and appropriated,

and when said sale of shares should equal the carrying capacity of said irrigation system, then, and in that instance, the said Irrigation Company should make no further sales of alleged water rights by means of selling and issuing shares of stock in said Big Wood River Reservoir & Canal Company.

The United States owned the desert lands, and the State owned the water. *Twin Falls Salmon River Land & W. Co. vs. Caldwell*, 248 Fed. 177, 183. The object of the legislation enacted by Congress and by the legislature of the State in that behalf was to enable settlers to occupy, thoroughly irrigate, and reclaim the desert lands for agricultural purposes. The plaintiffs individually entered into contracts with the defendant, the Idaho Irrigation Company, under the provisions of these statutes, to purchase a certain number of shares of stock of the Big Wood River Reservoir & Canal Company, organized to appropriate the waters of the State in sufficient quantity for distribution to settlers to irrigate lands included in the project. A share of stock in the operating company was a water right in said company for each and every acre filed upon or purchased from the State, or acquired from the United States, each share or water right representing a share in the carrying capacity in the operating companies' canal sufficient to deliver water at the rate of one-eightieth ( $1/80$ ) of one cubic foot per acre per second of time for irrigation and for domestic uses of the tract of land described in the contract.



To carry this project into effect, the United States, on February 19, 1915, issued its patent to the State of Idaho for 117,677.64 acres of desert lands. It was provided in the patent that the lands were granted for reclamation, upon the conditions, restrictions and limitations of the Carey Act of 1894 and its amendments.

The legislature of the State of Idaho, by an act dated March 9, 1895, accepted the conditions of the Carey Act, and provided, among other things, that the selection, management, and disposal of said lands should be vested in the State Board of Land Commissioners (Stats. of Idaho, 1895, page 219, Section 1613 R. S. of Idaho, 1909; Section 2996, Compiled Statutes of Idaho, 1919).

It was further provided by the Act of March 9, 1895, that upon the withdrawal of the land by the Department of the Interior, it should be the duty of the Board of Land Commissioners to enter into contracts with parties submitting proposals for the construction of irrigation works.

By the Act of February 19, 1919 (Stats. of Idaho 1919, pages 65 and 67), the powers and duties of the State Board of Land Commissioners were transferred to the Department of Reclamation (created by the Act), so far as their duties related to the administration of the Carey Act (Compiled Stats. of Idaho, sec. 350).

It was further provided by the Act of March 17, 1919 (Stats. of Idaho, page 249), that:

“Should it appear at any time, in the judgment of the Department of Reclamation, that

the water supply of the party or parties with which such contract had been made, is inadequate to properly and sufficiently irrigate the lands so proposed in said contract to be irrigated, or that water rights have been sold to the full carrying capacity of the **proposed ditch**, canal or other irrigation works, or that water rights have been sold by said party or parties to the full amount or in excess of the actual appropriation of water made by said party or parties, or to the full amount or in excess of the supply of water made actually available by said parties, then in that event the Department of Reclamation shall have the right to enter an order forbidding said parties from making any further or additional sales of water rights or of shares of stock in any Company representing or evidencing water rights, and after the entry of such order, all further or additional sales of such water or water rights, shares of stock and contracts to sell the same, made by said party or parties, shall be null and void, and said Department of Reclamation shall have the power to refuse to issue entrymen's certificates thereon.

"Sec. 2. This Act shall apply to contracts heretofore made, as well as contracts hereafter to be made by the Department."

(Compiled Stats. of Idaho, sec. 3004.)

Pursuant to this statute, the Department of Reclamation, by its Commissioner, entered an order, on June 2, 1919, declaring that, in his judgment,

the water supply of the said Idaho Irrigation Company was not adequate to properly or sufficiently irrigate, reclaim, or cultivate more of the land proposed in the contracts that had been made between the Idaho Irrigation Company and the settlers on the lands to be irrigated, and which had already been entered and sold. The Commissioner thereupon entered an order, forbidding the Idaho Irrigation Company from making any further or additional sales of water rights or of shares of stock, representing or evidencing water rights, or entering into any further contract or contracts for the sale of water rights for lands to be watered from the system of irrigation works of the said Idaho Irrigation Company.

Thereafter this order was approved by the State Board of Land Commissioners, and has continued to remain in full force and effect.

Thereupon the State of Idaho, by its Governor and Attorney General, intervened in this suit, joining the plaintiffs in their prayer that further sale of water rights by the defendants should be enjoined and restrained and from making any further or additional sales of water rights or of shares of stock representing or evidencing water rights or entering into any further contract or contracts for the sale of water rights for the lands to be watered from the system or the irrigation works of the said Idaho Irrigation Company, and that plaintiffs' complaint be granted.

Upon the trial of the case, it was stipulated that the total outstanding number of shares of the Big

Wood River Reservoir & Canal Company were 88,835.71.

This number of shares of stock, under the contract between the parties, represented 88,835.71 acres of land filed upon or purchased from the State, or acquired from the United States by the settlers.

The contracts entitled the owner of each share of stock to receive one-eightieth ( $1/80$ ) of one cubic foot of water per second of time per acre of land for the irrigation of and for domestic uses of such settlers.

The statutory period for irrigation in the State of Idaho is from April 1st to November 1st of each year. The equivalent of one-eightieth ( $1/80$ ) of one cubic foot of water per second of time per acre of land for the statutory period is approximately five and one-half ( $5-1/2$ ) acre-feet. We find no evidence in the record that such amount of water had been delivered to the settlers by the defendant or the operating Company, the Big Wood River Reservoir & Canal Company.

The defendants introduced, in evidence, three statements, taken from the records of the Idaho Irrigation Company, showing (1) the acre-feet of water delivered at main canal heads of the Project for the years 1911 to 1919, and (2) the acre-feet of water delivered at the farmers' headgates, and (3) the acreage in cultivation, for the same years, to which is added (4) by calculation the average acre-feet of water delivered each year, as follows:

| Year.            | (1)<br>Main<br>Canal<br>Heads | (2)<br>Farmers'<br>Headgates | (3)<br>Acreage<br>in Culti-<br>vation | (4)<br>Acre-<br>Feet |
|------------------|-------------------------------|------------------------------|---------------------------------------|----------------------|
| 1911             | 180,226                       | 78,925                       | 17,464                                | 4,519                |
| 1912             | 204,065                       | 102,569                      | 23,068                                | 4,446                |
| 1913             | 229,548                       | 123,473                      | 25,755                                | 4,794                |
| 1914             | 210,239                       | 139,106                      | 31,205                                | 4,457                |
| 1915             | 126,945                       | 87,561                       | 33,477                                | 2,615                |
| 1916             | 285,076                       | 170,769                      | 36,621                                | 4,663                |
| 1917             | 251,046                       | 170,968                      | 39,121                                | 4,370                |
| 1918             | 215,903                       | 123,007                      | 45,044                                | 2,730                |
| 1919             | 178,232                       | 109,273                      | 56,864                                | 1,921                |
|                  | <u>1,881,280</u>              | <u>1,105,651</u>             | <u>308,619</u>                        | <u>34,515</u>        |
| Total<br>Average | 209,031                       | 122,850                      | 34,291                                | 3,835                |

The difference between the acre-feet of water delivered at the main canal heads and the acre-feet of water delivered at the farmers' headgates was the loss sustained by evaporation, percolation, and wastage in transmission to the farmers' headgates.

Attention is called to the fact that we are dealing with water rights for land entered under the Carey Act. It is important to bear this fact in mind, for the reason that there are other lands entitled to receive water from the same sources of supply as the lands under the Carey Act. These other lands are referred to in the testimony as "old rights," and are such lands as school lands, desert lands taken up under the Desert Land Act of 1877, Homestead lands, etc., and lands whose rights have been adjudged by decrees of court.

It appears from Exhibit No. 11 in this case that these other lands with prior rights aggregate 19,728.57 acres. Whether the water rights for these lands are included in part in the aggregate water

rights of the water delivered at the Main Canal Head is not clear; but if they are, it will account for part of the loss of water before it is delivered at the farmers' headgates. Further than this, they are unimportant, and whatever their relation to the present project is, they cannot change the general result.

But the question to be determined here is not whether the water delivered to the farmers' headgates was sufficient to irrigate the land in cultivation during the previous years—the average of which was 34,291 acres, the equivalent approximately of 3,835 acre-feet per acre—but whether the available water supply for the project is sufficient to irrigate as much as, or more than approximately 88,835.71 acres, the acreage represented by the outstanding number of shares of the water supply project. For such acreage the present water supply delivered at the farmers' headgates, averaging 122,850 acre-feet, would be for the season 1.38 acre-feet per acre.

The evidence submitted by the defendants tends to establish the fact that not only has the water supply for this project been exhausted by the sales of shares already sold of water stock, but that the available water supply has been very much oversold.

The Court below stated this question in the following terms:

“Whether the defendant has oversold water rights, therefore, involves two inquiries. What is the reasonable duty of water, that is, consid-

ering the project as a whole, how much water per acre is reasonably necessary for the season; or, putting it in another way, what length of time in the aggregate, during a season, must the farmer receive water at the rate of one-eightieth cubic foot per second per acre, to properly irrigate his land? And, second, how much water, measured at the farmers' head-gates, can the system deliver at such times as it is needed during the season?"

In considering this question, the Court found, as we have in reading the record, that but little assistance can be derived from expert opinions, the Court stating that such evidence was to be weighed in the light of the data upon which the conclusions rest, and was to be considered together with the experience of intelligent farmers and the facts of actual irrigation practice.

Whether the unsatisfactory character of the expert testimony, as we have it before us in the printed record, arises in part from condensation or lack of proper arrangement and accurate classification of data, we cannot say; but it has failed in important particulars to make itself clear or convincing. We are, therefore, following in the main the stipulations of the parties, the exhibits taken from the defendant's records, and the findings of the District Court as to the character of the land and topography of the country embraced in the project.

The Court describes the land, its texture and uses as follows:

"Clearly, the conditions upon the project are not favorable to a high duty of water. In point of topography, the lands are comparatively rough, and in many places reefs of rock project, above the surface. As a consequence the surface runoff is necessarily above normal. And there is also greater loss in transmission, owing to the increased length of service ditches on the farm. The soil is of very uneven depth, and as a consequence the unavoidable loss from deep percolation is above normal, and this loss cannot be recovered, because the water escapes through a substratum of fractured rock to unknown depths. On portions of the tract the soil is of fair texture, upon others it is coarse and sandy. The rainfall is almost negligible, and high winds prevail. It is altogether probable that approximately two-thirds of the acreage will ultimately be devoted to the raising of hay and root crops, requiring larger amounts of water, and one-third to grains, requiring smaller amounts. Under present conditions, three acre-feet, delivered at the times when same is needed, is probably sufficient, but not more than sufficient, on the average, for land actually irrigated. It is to be expected that as time goes on service ditches will be improved and land will be leveled and put into more favorable condition for the economic application of water, and naturally the duty of water increases to some extent with cultivations of the land. My conclusion is that



the project should have for its proper irrigation permanently an amount of water measured at the farmers' headgates equivalent to two and three-fourths acre-feet per acre for the entire area, without deductions for roads or other nonirrigable tracts."

On that basis, 122,850 acre-foot of water, distributed to the farmers at the rate of two and three-quarters ( $2\frac{3}{4}$ ) acre-feet per acre, would irrigate 44,672 acres, instead of 88,355.71 acres. It is needless to say that exact calculation for such a project is impossible. A careful and critical examination of the record in this case shows that only approximate results can be reached, and upon such results our judgment must be based.

The defendants approached this question from a different angle. They contend that the Secretary of the Interior, when he issued a patent to the State, determined, as a matter of fact, that the water supply was sufficient for the reclamation of the irrigable portion of the 117,677.24 acres of land conveyed to the State, and that such determination binds this Court in this case. We cannot accept that view of the law as applicable to this controversy. This suit is upon a contract between parties. Neither the United States nor the Secretary of the Interior is a party to this action. It is true the State of Idaho, the Trustee of the tract of land conveyed by the Secretary of the Interior, is an intervenor. But the State is here, not in support of the defendant's claim that the Secretary of the Interior has determined that the available water supply, as

now ascertained, is sufficient for the whole tract; nor is it here even as a neutral. On the contrary, the State is here to say, and to urge upon the Court that the available supply of water, as now ascertained, is not sufficient, and that further sales of water rights for the project should be enjoined.

This action of the State does not aid us in determining the legal question now under consideration, nor does it determine for this Court the fact that the outstanding issue of water stock of the Big Wood River Reservoir & Canal Company has exhausted the available water supply for this project; but it tends to prove that fact, and is persuasive official action on the part of the State that the authority and jurisdiction of the Secretary of the Interior should not be extended by the Court to questions not clearly and distinctly within his administrative authority and jurisdiction.

In effect, the State agrees with this Court in *Twin Falls Oakley Land & Water Co. vs. Martens*, 271 Fed. 428, 433, where this Court, speaking through Judge Hunt, said:

“We believe that, in a proceeding to ascertain whether patents should issue, the finding by the Land Department upon the question whether the water supply is ample is conclusive for the purpose of issuing patent; but that is far from ruling that it is conclusive upon the question whether the plaintiff construction company has provided water at the rate of 1.5 acre-feet per acre as required by its contract with the settler. That is a matter which the

Land Department has not undertaken to pass upon, and could not."

We see no reason for changing our opinion on that question.

The remaining question relates to that part of the decree dealing with a number of shares of the Big Wood River Reservoir & Canal Company included in the total outstanding shares of its water stock.

In the stipulation between the parties, fixing the number of such shares at 88,835.71, it was further stipulated that of this number of shares, the Idaho Irrigation Company owned and controlled 12,722.64 shares; that, included in this last number of shares, there were 3,143.61 shares sold and resold to the interveners, Frank T. Disney and others, since the commencement of this action, and the filing of *lis pendens*, and that such sales were made by the trustees, parties defendant to this action, with the understanding and the agreement that in the event of an adverse decision to said defendants in this action, said trustees would make compensation or refund, to the purchasers of said shares of stock.

The prayer of plaintiffs' complaint was that the defendants should be permanently enjoined from issuing any new contracts, and also from again disposing of certain rights which had been originally sold to settlers, but had reverted to, or had been repurchased by the defendants.

It is provided in the Statutes of Idaho that "Real property or real estate consists of: Lands, possessory rights to land, ditch and water rights." (Section 5325, Idaho Compiled Stats. 1919.)

It is also provided that "In an action affecting the title, or the right of possession of real property," the filing of a *lis pendens* is constructive notice of the pendency of the action. (Section 6674, Idaho Compiled Stats. 1919.)

We are of the opinion that as these shares were issued after the filing of the *lis pendens*, the Court was right in excluding them from the water rights of the project.

There were also 4255.57 shares of stock appurtenant to lands acquired by the Idaho Irrigation Company and its trustees, subsequent to the commencement of suit and the filing of *lis pendens*.

For the same reason, we think the Court was right in excluding these shares from the water rights of the project.

The remaining shares of the 12,722.64, namely 5,322.26, were appurtenant to lands owned by the Idaho Irrigation Company and its trustees when this suit was commenced and *lis pendens* was filed. These shares are not included in the injunction in this suit, and leaves the outstanding water shares of the project approximately 83,513.45. The available water supply of approximately 122,850 acre-feet for the irrigation season, distributed to this number of acres of land, would furnish 1.47 acre-feet per acre to a corresponding number of acres, and not two and three quarters ( $2\frac{3}{4}$ ) acre-feet, which the District Court ascertained as a fact was the amount of water required to accomplish successful irrigation on this project. But we are not called upon in this suit to reduce the shares of

stock of the water project below the actual outstanding shares at the date this suit was commenced, and we do not understand that the District Court, by its decree, undertook to reduce the acres of land in the project to the number of acres for which two and three-quarters ( $2\frac{3}{4}$ ) acre-feet of water per acre delivered during the irrigation season is required for successful irrigation; but that that was the duty of water on that project, and as that duty could not be performed with the present available water supply, the defendants should be enjoined from selling any more shares of capital stock of the Big Wood River Reservoir & Canal Company which they, or any of them, held as assets in the said Idaho Irrigation Company at the date of commencement of this suit, and from selling, transferring, or otherwise disposing of water rights owned, held, or controlled at the date of the commencement of this suit.

We are of the opinion that the evidence supports the findings contained in the opinion of the Court, and that the findings and conclusions of law support the decree. The decree is accordingly affirmed. Costs of this court in favor of the appellees.

[Endorsed]: Opinion. Filed August 7, 1922.  
F. D. Monekton, Clerk. By Paul P. O'Brien,  
Deputy Clerk.

United States Circuit Court of Appeals for the  
Ninth Circuit.

No. 3797.

THE IDAHO IRRIGATION COMPANY, LIMITED; THE EQUITABLE TRUST COMPANY OF NEW YORK and LYMAN RHOADES, as Trustees, and M. R. KAYES, Trustee (Defendants) and FRANK T. DISNEY, et al., (Interveners),

Appellants,

vs.

FRED W. GOODING, NOVINGER and DARRAH SHEEP COMPANY, LIMITED, a Corporation; T. B. JONES, J. H. CULBERTSON, N. W. SINE, W. L. BIGGS, LOUIS JOHNSON, C. B. HESS and FRANK R. GOODING (Plaintiffs),

Appellees,

and

THE STATE OF IDAHO (Intervener),

Appellee.

**Decree U. S. Circuit Court of Appeals.**

Appeal from the ~~District~~ Court of the United States for the ——— District of Idaho, Southern Division.

This cause came on to be heard on the transcript of the record from the District Court of the United States for the ——— District of Idaho, Southern Division, and on the motion of counsel for the

appellee to dismiss the appeal therein, and was duly submitted.

On consideration whereof, it is now here ordered, adjudged, and decreed by this Court, that the said motion to dismiss the appeal in this cause be, and hereby is denied, and that the decree of the said District Court in this cause be, and hereby is, affirmed, with costs in favor of the appellees and against the appellants.

It is further ordered, adjudged and decreed by this Court, that the appellees recover against the appellants for their costs herein expended, and have execution therefor.

“Upon consideration of the petition of appellants for a rehearing of the above-entitled cause, filed September 6, 1922, and pursuant to the Per Curiam opinion this day filed thereon, it is ORDERED that if the decree of the District Court for the District of Idaho providing that the five thousand three hundred twenty-two and twenty-six hundredths (5322.26) shares of stock in the Big Wood River Reservoir & Canal Company appurtenant to lands owned by the Idaho Irrigation Company and its trustees is included in the injunction in the said cause, and as a consequence the water rights for the corresponding five thousand three hundred twenty-two and twenty-six hundredths (5322.26) acres of land within the project are thereby cancelled and annulled and decreed to be of no effect; that the decree of the said District Court in that particular be reversed.

“It is **FURTHER ORDERED** that if said shares of stock are excluded from the injunction, and the corresponding number of acres of land remain included in the project, that the decree of the said District Court be affirmed in that respect.

“It is **FURTHER ORDERED** that for the purpose of determining this question the said District Court is directed to make a finding upon that question and enter its decree in accordance with such finding and the opinion of this Court.

“It is **FURTHER ORDERED** that if the decree of the said District Court is amended in accordance with the direction contained in the opinion upon the petition of appellants for a rehearing, the said decree of the said District Court will be affirmed as so amended; otherwise the decree of the said District Court will stand affirmed as directed in the original opinion.

“It is **FURTHER ORDERED** that the petition of appellants for a rehearing filed September 6, 1922, be, and hereby is denied.”

(October 4, 1922.)

[Endorsed]: Decree, as Amended Pursuant to Order Entered October 4, 1922. Filed and Entered, August 7, 1922. F. D. Monckton, Clerk. By Paul P. O'Brien, Deputy Clerk.



At a stated term, to wit, the October Term, A. D. 1922, of the United States Circuit Court of Appeals for the Ninth Circuit, held in the courtroom thereof, in the City and County of San Francisco, in the State of California, on Wednesday, the fourth day of October, in the year of our Lord one thousand nine hundred and twenty-two. Present: The Honorable WILLIAM B. GILBERT, Senior Circuit Judge, Presiding; The Honorable ERSKINE M. ROSS, Circuit Judge; The Honorable WILLIAM H. HUNT, Circuit Judge.

No. 3797.

THE IDAHO IRRIGATION COMPANY, LIMITED, THE EQUITABLE TRUST COMPANY OF NEW YORK and LYMAN RHOADES, as Trustees, and M. R. KAYES, Trustee (Defendants), and FRANK T. DISNEY, et al. (Interveners),

Appellants,

vs.

FRED W. GOODING, NOVINGER & DARRAH SHEEP COMPANY, LIMITED, a Corporation; T. B. JONES, J. H. CULBERTSON, H. W. SINE, W. L. BIGGS, LOUIS JOHNSON, C. B. HESS and FRANK R. GOODING (Defendants), and THE STATE OF IDAHO (Intervener),

Appellees.

**Order Directing Filing of Per Curiam Opinion  
Upon Petition of Appellants for Rehearing.**

By direction of the Honorable Erskine M. Ross, William W. Morrow, and William H. Hunt, Circuit Judges, before whom the cause was heard, ORDERED that the Per Curiam opinion upon petition for rehearing this day rendered by this Court in the above-entitled cause be forthwith filed by the Clerk, and that an order be entered denying the petition of the appellants for a rehearing.

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In the United States Circuit Court of Appeals for  
the Ninth Circuit.

No. 3797.

**THE IDAHO IRRIGATION COMPANY, LIMITED; THE EQUITABLE TRUST COMPANY OF NEW YORK and LYMAN RHOADES, as Trustees, and M. R. KAYES, Trustee (Defendants), and FRANK T. DISNEY et al. (Interveners),**

**Appellants,**

**vs.**

**FRED W. GOODING, NOVINGER & DARRAH SHEEP COMPANY, LIMITED, a Corporation; T. B. JONES, J. H. CULBERTSON, N. W. SINE, W. L. BIGGS, LOUIS JOHNSON, C. B. HESS and FRANK R. GOODING (Defendants), and THE STATE OF IDAHO (Intervener),**

**Appellees.**

**Memo Opinion and Order Denying Appellants'  
Petition for Rehearing.****UPON PETITION OF APPELLANTS FOR RE-  
HEARING.**

In the petition for rehearing, it is stated that the Court is in error in assuming that the Trial Court held that the Irrigation Company was entitled to use and enjoy the water rights appurtenant to five thousand three hundred twenty-two and twenty-six hundredths (5322.26) acres of land owned by that company and its trustees when the suit was commenced, and not resold prior to trial of the case.

This may be so. It is not clear from the descriptions contained in the decree of the District Court whether these five thousand three hundred twenty-two and twenty-six hundredths (5322.26) shares of stock in the Big Wood River Reservoir & Canal Co., appurtenant to lands owned by the Idaho Irrigation Co. and its trustees when the suit was commenced and *lis pendens* filed are, in fact, included in the injunction in this suit, and as a consequence, whether the water rights for the corresponding five thousand three hundred twenty-two and twenty-six hundredths (5322.26) acres of land within the project are thereby cancelled and annulled and decreed to be of no effect; if such shares are included in the injunction, the decree should be reversed in that particular.

But if, on the other hand, such shares of stock are excluded from the injunction, and the corresponding number of acres of land remain included

in the project, then the decree should be affirmed in that respect.

For the purpose of determining this question, the lower Court is directed to make a finding upon that question and enter its decree in accordance with such finding and the opinion of this Court.

If the decree is amended in accordance with this direction, it will be affirmed as so amended. Otherwise the decree will stand affirmed as directed in the original opinion.

The petition for rehearing is denied.

[Endorsed]: Memo. Opinion and Order Denying Appellants' Petition for Rehearing. Filed October 4, 1922. F. D. Monekton, Clerk. By Paul P. O'Brien, Deputy Clerk.

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At a stated term, to wit, the October Term, A. D. 1922, of the United States Circuit Court of Appeals for the Ninth Circuit, held in the courtroom thereof, in the City and County of San Francisco, in the State of California, on Wednesday, the fourth day of October, in the year of our Lord one thousand nine hundred and twenty-two. Present: The Honorable WILLIAM B. GILBERT, Senior Circuit Judge, Presiding; The Honorable ERSKINE M. ROSS, Circuit Judge; The Honorable WILLIAM H. HUNT, Circuit Judge.

No. 3797.

THE IDAHO IRRIGATION COMPANY, LIMITED, THE EQUITABLE TRUST COMPANY OF NEW YORK and LYMAN RHOADES, as Trustees, and M. R. KAYES, Trustee (Defendants), and FRANK T. DISNEY, et al. (Intervenors),

Appellants,

vs.

FRED W. GOODING, NOVINGER & DARRAH SHEEP COMPANY, LIMITED, a Corporation; T. B. JONES, J. H. CULBERTSON, H. W. SINE, W. L. BIGGS, LOUIS JOHNSON, C. B. HESS and FRANK R. GOODING (Defendants), and THE STATE OF IDAHO (Intervener),

Appellees.

**Order Denying Petition for Rehearing, Etc.**

Upon consideration of the petition of appellants for a rehearing of the above-entitled cause, filed September 6, 1922, and pursuant to the Per Curiam opinion this day filed thereon, IT IS ORDERED that if the decree of the District Court for the District of Idaho providing that the five thousand three hundred twenty-two and twenty-six hundredths (5322.26) shares of stock in the Big Wood River Reservoir & Canal Company appurtenant to lands owned by the Idaho Irrigation Company and its trustees is included in the injunction in the said cause, and as a consequence the water rights for

the corresponding five thousand three hundred twenty-two and twenty-six hundredths (5322.26) acres of land within the project are thereby cancelled and annulled and decreed to be of no effect; that the decree of the said District Court in that particular be reversed.

IT IS FURTHER ORDERED that if said shares of stock are excluded from the injunction, and the corresponding number of acres of land remain included in the project, that the decree of the said District Court be affirmed in that respect.

IT IS FURTHER ORDERED that for the purpose of determining this question the said District Court is directed to make a finding upon that question and enter its decree in accordance with such finding and the opinion of this Court.

IT IS FURTHER ORDERED that if the decree of the said District Court is amended in accordance with the directions contained in the opinion upon the petition of appellants for a rehearing, the said decree of the said District Court will be affirmed as so amended; otherwise the decree of the said District Court will stand affirmed as directed in the original opinion.

IT IS FURTHER ORDERED that the petition of appellants for a rehearing filed September 6, 1922, be, and hereby is denied.

At a stated term, to wit, the October Term, A. D. 1922, of the United States Circuit Court of Appeals for the Ninth Circuit, held in the courtroom thereof, in the City and County of San Francisco, in the State of California, on Monday, the sixteenth day of October, in the year of our Lord one thousand nine hundred and twenty-two. Present: The Honorable WILLIAM B. GILBERT, Senior Circuit Judge, Presiding; The Honorable WILLIAM H. HUNT, Circuit Judge; The Honorable CHARLES E. WOLVERTON, District Judge.

No. 3797.

THE IDAHO IRRIGATION COMPANY, LIMITED, et al.,

Appellants,

vs.

FRED W. GOODING et al.,

Appellees.

**Order Granting Leave to File Motion for Reconsideration of Supplemental Opinion, Etc.**

Upon oral motion of Mr. W. G. Bissell, counsel for the appellees in the above-entitled cause, and good cause therefor appearing, ORDERED leave granted said counsel to file a motion for reconsideration of the supplemental opinion of this Court in the above-entitled cause filed on October 4, 1922, and for leave to file a brief in support thereof;

FURTHER ORDERED counsel for the appellants may file a reply thereto within ten days thereafter.

IT IS FURTHER ORDERED that the mandate of this Court under Rule 32 in the above-entitled cause be, and hereby is stayed to and including December 4, 1922.

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In the United States Circuit Court of Appeals for  
the Ninth Circuit.

No. 3797.

THE IDAHO IRRIGATION COMPANY, LIMITED; THE EQUITABLE TRUST COMPANY OF NEW YORK and LYMAN RHOADES, as Trustees, and M. R. KAYES, Trustee (Defendants), and FRANK T. DISNEY, et al. (Intervenors),

Appellants,

vs.

FRED W. GOODING, NOVINGER & DARRAH SHEEP COMPANY, LIMITED, a Corporation; T. B. JONES, J. H. CULBERTSON, N. W. SINE, W. L. BIGGS, LOUIS JOHNSON, C. B. HESS and FRANK R. GOODING (Plaintiffs), and THE STATE OF IDAHO (Intervener),

Appellees.



**Motion for Reconsideration of Supplemental Opinion.**

To the Honorable, the United States Circuit Court of Appeals, for the Ninth Circuit.

WHEREAS, upon the 16th day of October, 1922, this Court made the following order in the above cause:

"Upon oral motion of Mr. W. G. Bissell, counsel for the appellees in the above-entitled cause, and good cause therefor appearing, ORDERED leave granted said counsel to file a motion for reconsideration of the supplemental opinion of this Court in the above-entitled cause filed on October 4, 1922, and for leave to file a brief in support thereof;

"FURTHER ORDERED counsel for the appellants may file a reply thereto within ten days thereafter.

"IT IS FURTHER ORDERED that the mandate of this Court under Rule 32 in the above entitled cause be, and hereby is stayed to and including December 4, 1922."

Now, therefore, the above-named appellees respectfully move your Honorable Court to reconsider the supplemental opinion of this Court, made and filed herein on October 4, 1922, for the following reasons, to wit:

First. That such supplemental opinion was made and entered upon an *ex parte* application for rehearing and the rehearing was in fact denied.

Second. That such supplemental opinion materially varies the original opinion, and materially and seriously effects the rights of the appellees, and the same was made without notice to appellees, and without a rehearing or resubmission of the matter.

Third. That such supplemental opinion is entirely at variance with the original opinion; and while it purports to affirm the opinion of the district court in said matter, in fact and effect it reverses the same.

Fourth. That such supplemental opinion is apparently predicated upon a misunderstanding of the facts, or a misapplication of the law.

W. G. BISSELL,  
W. T. STAFFORD,  
BRANCH BIRD,  
KARL PAINE,  
Solicitors for Appellees.

[Endorsed]: Motion for Reconsideration of Supplemental Opinion. Filed November 1, 1922.  
F. D. Monekton, Clerk.

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At a stated term, to wit, the October Term, A. D. 1922, of the United States Circuit Court of Appeals for the Ninth Circuit, held in the courtroom thereof, in the City and County of San Francisco, in the State of California, on Monday, the nineteenth day of February, in the year of our Lord one thousand nine hundred

and twenty-three. Present: The Honorable WILLIAM B. GILBERT, Senior Circuit Judge, Presiding; The Honorable WILLIAM W. MORROW, Circuit Judge.

No. 3797.

THE IDAHO IRRIGATION COMPANY, LIMITED, et al.,

Appellants,

vs.

FRED W. GOODING et al.,

Appellees.

**Order Denying Petition for Rehearing and Motion for Reconsideration of Supplemental Opinion.**

On consideration thereof, and by direction of the Honorable Erskine M. Ross, William W. Morrow and William H. Hunt, Circuit Judges, before whom the case was heard, it is ORDERED that the motion of appellees, filed November 1, 1922, for reconsideration of supplemental opinion filed October 4, 1922, in the above-entitled case be, and hereby is denied.

IT IS FURTHER ORDERED that the petition of appellants for a rehearing in the above-entitled cause, filed November 20, 1922, be, and hereby is denied.

In the United States Circuit Court of Appeals for  
the Ninth Circuit.

No. 3797.

THE IDAHO IRRIGATION COMPANY, LIMITED; THE EQUITABLE TRUST COMPANY OF NEW YORK and LYMAN RHOADES, as Trustees, and M. R. KAYES, Trustee (Defendants), and FRANK T. DISNEY, et al. (Intervenors),

Appellants,

vs.

FRED W. GOODING, NOVINGER & DARRAH SHEEP COMPANY, LIMITED, a Corporation; T. B. JONES, J. H. CULBERTSON, N. W. SINE, W. L. BIGGS, LOUIS JOHNSON, C. B. HESS and FRANK R. GOODING (Defendants), and THE STATE OF IDAHO (Intervener),

Appellees.

**Petition for Appeal.**

The above-named appellants, The Idaho Irrigation Company, Limited, The Equitable Trust Company of New York, and Lyman Rhoades, as Trustees, and M. R. Kayes, Trustee, and Frank T. Disney, Owen J. Brennan, Dave Engle, W. B. Joy, John F. Engle, L. H. Dysart, H. J. Leyson, George W. Wedgewood, E. L. Tate, Otto Schild, W. S. Smith, M. R. Kays, E. G. Molsee, T. M. Osborn, Frank L. Thomas, Wm. Roseberry, J. G. Wilmoth,

W. D. Fales, R. W. Houston, Mrs. Monnie Clinger, Steve Ballard, Arthur W. Garrett, George W. Bowman, George F. Gorow, Bert Wyant, and Lillie Dale Wyant, H. D. Edwards, Mrs. J. C. Shafer, A. H. Bower, Elbert Sherman, Z. T. Spellman, J. M. Scott and Dionysius B. Kountanius, respectfully show that the above-entitled cause is now pending in the United States Circuit Court of Appeals for the Ninth Circuit and that a judgment was therein rendered on the 7th day of August, 1922, affirming the decree of the District Court of the United States for the District of Idaho, Southern Division, against these appellants, and that thereafter, to wit: On the 6th day of September, 1922, your appellants filed a petition for rehearing in said cause with the Clerk of said Circuit Court of Appeals, which petition was duly considered, and thereafter on the 4th day of October, 1922, said petition was denied, but the judgment theretofore entered on August 7, 1922, was modified in certain particulars, and thereupon said appellees filed a petition for rehearing in due form and within the time required by the rules of said court, and which petition was duly considered by said Court and thereafter, to wit: On the 19th day of February, 1923, the said petition for rehearing was denied and overruled by said Circuit Court of Appeals and the Judgment of said Court entered on August 7, 1922, as modified by the order of said Court made and entered on October 4, 1922, thereupon became final, except as to the right of the parties thereto to appeal therefrom under the statutes of the United States; that

the matter in controversy in said suit exceeds \$1,000.00, besides costs; that this cause is one in which the judgment or decree of the Circuit Court of Appeals for the Ninth Circuit is not final within the meaning of Section 128 of The Judicial Code, and that it is a proper cause to be reviewed by the Supreme Court of the United States on appeal.

And these appellants conceiving themselves aggrieved by the judgment and decree so made and entered in this Court in said cause, do hereby appeal from said judgment and decree to the Supreme Court of the United States and they pray that this appeal may be allowed and that a transcript of the record and proceedings in said cause, with all things concerning the same, duly authenticated, may be sent to the Supreme Court of the United States, in order that the errors complained of in the assignment of errors herewith filed may be reviewed, and, if error be found, corrected according to the laws and customs of the United States.

**RICHARDS & HAGA,**

Residence: Boise, Idaho,

**E. A. WALTERS,**

Residence: Twin Falls, Idaho,

**E. D. REYNOLDS,**

Residence: Jerome, Idaho,

**MURRAY, PRENTICE & ALDRICH,**

Residence: 37 Wall Street, New York City,

Attorneys for Appellants.

[Endorsed]: Petition of the Idaho Irrigation Company, Limited, et al., for Appeal to Supreme

Court U. S. Filed April 27, 1923. F. D. Monekton, Clerk. By Paul P. O'Brien, Deputy Clerk.

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In the United States Circuit Court of Appeals for  
the Ninth Circuit.

No. 3797.

THE IDAHO IRRIGATION COMPANY, LIMITED; THE EQUITABLE TRUST COMPANY OF NEW YORK, and LYMAN RHOADES, as Trustees, and M. R. KAYES, Trustee (Defendants), and FRANK T. DISNEY, et al. (Intervenors),

Appellants,

vs.

FRED W. GOODING, NOVINGER & DARRAH SHEEP COMPANY, LIMITED, a Corporation; T. B. JONES, J. H. CULBERTSON, N. W. SINE, W. L. BIGGS, LOUIS JOHNSON, C. B. HESS and FRANK R. GOODING (Defendants), and THE STATE OF IDAHO (Intervener),

Appellees.

### **Assignment of Errors.**

The above-named appellants in connection with their petition for appeal herein present and file therewith their assignment of errors, as to which matters and things they say that the judgment and decree entered herein on the 7th day of August, 1922, as amended on the 4th day of October, 1922,

and the order of said Court made on the 4th day of October, 1922, overruling and denying the petition of these appellants for rehearing, are erroneous and unjust to these appellants and particularly in this:

1. That the Court erred in holding and deciding that the District Court had the power and authority to cancel and annul the water rights appurtenant to and the lien created under the Act of Congress known as the Carey Act, on approximately 7,500 acres of land which the Secretary of the Interior had found and determined to have been reclaimed from the irrigation system here involved to the extent and degree required by said Act of Congress and for which the Secretary of the Interior had issued patent on the assumption that said lands would be permanently supplied with water from said irrigation system.

2. That the Court erred in holding and deciding that the District Court had jurisdiction, power and authority to review in this suit the facts which the Secretary of the Interior was required to determine under the Act of Congress before patent was issued for the Carey Act lands involved in this suit.

3. That the Court erred in not holding and deciding that the decision of the Secretary of the Interior as to the amount of water required to accomplish reclamation of public lands segregated under the Carey Act, to the extent or degree contemplated by said Act, is final conclusive and binding on the Courts, and in not holding and deciding that the District Court had no jurisdiction to determine



the issues in this case, and in not holding that it was without power to cancel and annul the water rights appurtenant to the lands held by appellants.

4. That the Court erred in holding and deciding that the District Court could, by reason of the provisions in the contract between the Idaho Irrigation Company and the settlers, cancel and annul water rights appurtenant to patented Carey Act lands and transfer such water to other Carey Act lands in order to increase the water supply for lands held by appellees.

5. That the Court erred in not holding and deciding that the lien created under the said Act of Congress and the Laws of the State of Idaho upon the lands segregated under the Carey Act became a vested right upon the issuance of patent, and in not holding that the decision of the District Court in excluding the lands of appellants from participation in the water supply dedicated to and set aside for the reclamation thereof, deprived these appellants of their property without due process of law contrary to Section 1 of the Fourteenth Amendment to the Constitution of the United States.

6. That the Court erred in holding and deciding that only 122,817 acre-feet of water were available for the reclamation of the lands entitled to water in the irrigation system involved in this suit.

7. That the Court erred in holding and deciding that the Act of the Legislature of the State of Idaho passed in 1919 (Sec. 3004 Ida. Comp. Stat.

1919) supported the decree of the District Court, or had any application to this suit.

8. That the Court erred in holding and deciding that no injustice would be done appellants by cancelling and annulling the water rights appurtenant to the lands described in the amended decree and denied the right to share in the water supply of said irrigation project.

9. That the Court erred in holding and deciding that appellees were entitled to  $2\frac{3}{4}$  acre-feet per acre measured at the farmers' headgates.

10. That the Court erred in not disregarding the evidence and opinions of scientifically trained investigators and experts on the duty of water and in holding and deciding that such investigators and experts could not make proper deductions or form correct opinions as to the duty of water on said irrigation project from investigations which they had made and the data submitted to them as a basis for their opinions.

11. That the Court erred in holding and deciding that appellees were entitled to more water than their proportionate share of the water dedicated to the project by the State of Idaho and the Secretary of the Interior.

12. That the Court erred in holding and deciding that Appellants had admitted by their answer that only 122,817 acre-feet of water were available for the lands entitled to water from said irrigation system, and in holding that the amount of water available for said irrigation project could be determined from the average amount delivered to the

settlers during the period when the project was being gradually developed and the amount delivered was based upon the small acreage in cultivation and not upon the capacity of the system.

WHEREFORE, appellants pray that the decree of the Circuit Court of Appeals and of the District Court be reversed and set aside and the cause remanded with directions to dismiss the Bill of Complaint.

RICHARDS & HAGA,

Residence: Boise, Idaho,

E. A. WALTERS,

Residence: Twin Falls, Idaho,

E. D. REYNOLDS,

Residence: Jerome, Idaho,

MURRAY, PRENTICE & ALDRICH,

Residence: 37 Wall Street, New York City,

Attorneys for Appellants.

[Endorsed]: Assignment of Errors on Appeal of the Idaho Irrigation Company, Limited, to Supreme Court U. S. Filed April 27, 1923. F. D. Monckton, Clerk. By Paul P. O'Brien, Deputy Clerk.

In the United States Circuit Court of Appeals for  
the Ninth Circuit.

No. 3797.

THE IDAHO IRRIGATION COMPANY, LIMITED; THE EQUITABLE TRUST COMPANY OF NEW YORK, and LYMAN RHOADES, as Trustees, and M. R. KAYES, Trustee (Defendants), and FRANK T. DISNEY, et al. (Intervenors),

Appellants,

vs.

FRED W. GOODING, NOVINGER & DARRAH SHEEP COMPANY, LIMITED, a Corporation; T. B. JONES, J. H. CULBERTSON, N. W. SINE, W. L. BIGGS, LOUIS JOHNSON, C. B. HESS and FRANK R. GOODING (Defendants), and THE STATE OF IDAHO (Intervener).

Appellees.

**Order Allowing Appeal.**

IT IS HEREBY ORDERED, That the appeal in the above-entitled case to the Supreme Court of the United States be and is hereby allowed as prayed.

Dated this 27th day of April, 1923.

WM. W. MORROW,

United States Circuit Judge for the Ninth Circuit.

[Endorsed]: Order Allowing Appeal of the Idaho Irrigation Company, Limited, et al. to Supreme Court U. S. Filed April 27, 1923. F. D. Monckton, Clerk. By Paul P. O'Brien, Deputy Clerk.

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In the United States Circuit Court of Appeals for  
the Ninth Circuit.

No. 3797.

THE IDAHO IRRIGATION COMPANY, LIMITED; THE EQUITABLE TRUST COMPANY OF NEW YORK and LYMAN RHOADES, as Trustees, and M. R. KAYES, Trustee (Defendants), and FRANK T. DISNEY, et al. (Interveners),

Appellants,

vs.

FRED W. GOODING, NOVINGER & DARRAH SHEEP COMPANY, LIMITED, a Corporation; T. B. JONES, J. H. CULBERTSON, N. W. SINE, W. L. BIGGS, LOUIS JOHNSON, C. B. HESS and FRANK R. GOODING (Defendants), and THE STATE OF IDAHO (Intervener),

Appellees.

**Bond on Appeal.**

KNOW ALL MEN BY THESE PRESENTS, That we, The Idaho Irrigation Company, Limited, and The Equitable Trust Company of New York, as Principals, and the Boise Title and Trust Com-

pany of Boise, Idaho, as Surety, are held and firmly bound unto the said Fred W. Gooding, Novinger & Darrah Sheep Company, Limited, a Corporation, T. B. Jones, J. H. Culbertson, N. W. Sine, W. L. Biggs, Louis Johnson, C. B. Hess, Frank R. Gooding and The State of Idaho, Appellees above named, in the sum of Five Hundred Dollars (\$500.00), for the payment of which well and truly to be made to the said appellees in the above-entitled cause, we bind ourselves and each of our successors and assigns, jointly and severally, firmly by these presents.

SEALED with our seals and dated this 24th day of April, 1923.

The condition of this obligation is such, that

WHEREAS, The above-named The Idaho Irrigation Company, Limited, The Equitable Trust Company and the other appellants in said cause, have prosecuted an appeal to the Supreme Court of the United States to reverse the judgment and decree of the United States Circuit Court of Appeals for the Ninth Circuit, made and entered in the above-entitled cause, affirming with modification a certain judgment made and entered by the District Court of the United States for the District of Idaho, Southern Division, in said cause;

NOW, THEREFORE, if the said appellants shall prosecute their said appeal to effect, and answer all damages and costs if they fail to make their plea good, then this obligation shall be void, otherwise to remain in full force and effect.

IN WITNESS WHEREOF, The said parties have caused their names to be hereunto subscribed, and the said Surety has hereunto affixed its corporate seal the day and year first above written.

THE IDAHO IRRIGATION COMPANY,  
LIMITED.

By RICHARDS & HAGA,  
Its Attorneys.

THE EQUITABLE TRUST COMPANY  
OF NEW YORK, Trustee,

By RICHARDS & HAGA,  
Its Attorneys.

BOISE TITLE AND TRUST COMPANY,

By J. H. HAYS,  
President.

[Seal]

Attest: W. M. ABBS,  
Secretary.

The foregoing bond approved as to form and sufficiency this 27 day of April, 1923, and to operate as a supersedeas under the stipulation of the parties filed herein.

WM. W. MORROW,  
United States Circuit Judge.

[Endorsed]: Bond on Appeal of the Idaho Irrigation Company, Limited, to Supreme Court U. S. Filed April 27, 1923. F. D. Monckton, Clerk. By Paul P. O'Brien, Deputy Clerk.

United States Circuit Court of Appeals for the  
Ninth Circuit.

No. 3797.

THE IDAHO IRRIGATION COMPANY, LIMITED; THE EQUITABLE TRUST COMPANY OF NEW YORK and LYMAN RHOADES, as Trustees, and M. R. KAYES, Trustee (Defendants), and FRANK T. DISNEY, et al. (Interveners),

Appellants.

vs.

FRED W. GOODING, NOVINGER & DARRAH SHEEP COMPANY, LIMITED, a Corporation; T. B. JONES, J. H. CULBERTSON, N. W. SINE, W. L. BIGGS, LOUIS JOHNSON, C. B. HESS and FRANK R. GOODING, (Defendants), and THE STATE OF IDAHO (Intervener),

Appellees.

**Citation on Appeal to the Supreme Court of the  
United States.**

To Fred W. Gooding, Novinger & Darrah Sheep Company, Limited, a Corporation, T. B. Jones, J. H. Culbertson, N. W. Sine, W. L. Biggs, Louis Johnson, C. B. Hess, Frank R. Gooding and The State of Idaho, GREETING:

You are hereby cited and admonished to be and appear in the Supreme Court of the United States in the City of Washington, within sixty days from



the date of this writ, pursuant to an appeal, duly allowed by the Circuit Court of Appeals for the Ninth Circuit, wherein The Idaho Irrigation Company, Limited, The Equitable Trust Company of New York, and Lyman Rhoades as Trustees, and M. R. Kayes, Trustee, and Frank T. Disney, Owen J. Brennan, Dave Engle, W. B. Joy, John F. Engle, L. H. Dysart, H. J. Leyson, George W. Wedgewood, E. L. Tate, Otto Schild, W. S. Smith, M. R. Kays, E. G. Molsee, T. M. Osborn, Frank L. Thomas, Wm. Roseberry, J. G. Wilmoth, W. D. Fales, R. W. Houston, Mrs. Monnie Clinger, Steve Ballard, Arthur W. Garrett, George W. Bowman, George F. Gorow, Bert Wyant, and Lillie Dale Wyant, H. D. Edwards, Mrs. J. C. Shafer, A. H. Bower, Elbert Sherman, Z. T. Spellman, J. M. Scott and Dionysius B. Kountanius are appellants and you are appellees, to show cause, if any there be, why the decree rendered against the said appellants, as in said appeal mentioned, should not be corrected and why speedy justice should not be done the parties in that behalf.

WITNESS, The Honorable WILLIAM W. MORROW, United States Circuit Judge for the Ninth Circuit, this 27th day of April, A. D. 1923.

WM. W. MORROW,  
United States Circuit Judge for the Ninth Circuit.

Service of the foregoing citation and receipt of a copy thereof admitted this — day of — 1923.

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Attorneys for Appellees.

[Endorsed]: Citation on Appeal of the Idaho Irrigation Company, Limited, et al., to the Supreme Court of the United States. Filed April 27, 1923. F. D. Monckton, Clerk. By Paul P. O'Brien, Deputy Clerk.

United States Circuit Court of Appeals for the  
Ninth Circuit.

No. 3797.

THE IDAHO IRRIGATION COMPANY, LIMITED, THE EQUITABLE TRUST COMPANY OF NEW YORK, and LYMAN RHOADES as Trustees, and M. R. KAYES, Trustee, and FRANK T. DISNEY, OWEN J. BRENNAN, DAVE ENGLE, W. B. JOY, JOHN F. ENGLE, L. H. DYSART, H. J. LEYSON, GEORGE W. WEDGEWOOD, E. L. TATE, OTTO SCHILD, W. S. SMITH, M. R. KAYS, E. G. MOLSEE, T. M. OSBORN, FRANK L. THOMAS, WM. ROSEBERRY, J. G. WILMOTH, W. D. FALES, R. W. HOUSTON, MRS. MONNIE CLINGER, STEVE BALLARD, ARTHUR W. GARRETT, GEORGE W. BOWMAN, GEORGE F. GOROW, BERT WYANT, and LILLIE DALE WYANT, H. D. EDWARDS, MRS. J. C. SHAFER, A. H. BOWER, ELBERT SHERMAN, Z. T. SPELLMAN, J. M. SCOTT and DIONYSIUS B. KOUNTANIUS,

Appellants,

vs.

FRED W. GOODING, NOVINGER & DARRAH SHEEP COMPANY, LIMITED, a Corporation, T. B. JONES, J. H. CULBERTSON, N. W. SINE, W. L. BIGGS, LOUIS JOHNSON, C. B. HESS and FRANK B. GOODING, and THE STATE OF IDAHO,

Appellees.

**Certificate of Clerk U. S. Circuit Court of Appeals  
to Transcript of Record Upon Appeal to the  
Supreme Court of the United States.**

I, Frank D. Monckton, as Clerk of the United States Circuit Court of Appeals for the Ninth Circuit, do hereby certify the foregoing seven hundred twelve (712) pages, numbered from and including 1 to and including 712, to be a full, true and correct copy of the record under Rule 8 of the Supreme Court of the United States, in the above-entitled cause, including the assignment of errors on appeal to the Supreme Court of the United States and of all proceedings had, and of all papers, including the opinion filed August 7, 1922, and the memorandum opinion and order denying appellants' petition for rehearing filed October 4, 1922, in the said Circuit Court of Appeals in the above-entitled case, as the originals thereof remain on file and appear of record in my office, and that the same, together with the accompanying, original exhibits, marked as follows:

Plaintiffs' Nos. 2, 3, 4, 5, 7, 8, 10, 13, 14, 15,  
16, 17, 18, 19, 20, 25, 26, 27 and 28;

Defendant's Nos. 4, 5, 6, 7, 8, 9, 11, 12 and 15;

Interveners' Nos. 2 and 3,

constitute the transcript of record upon appeal to the Supreme Court of the United States in the above-entitled cause.

ATTEST my hand and the seal of the United States Circuit Court of Appeals for the Ninth Circuit, at the City of San Francisco, in the State of California, this 30th day of April, A. D. 193.

[Seal]

F. D. MONCKTON,

Clerk.

By Paul P. O'Brien,

Deputy Clerk.

In the United States Circuit Court of Appeals for the Ninth Circuit.

No. 3797.

THE IDAHO IRRIGATION COMPANY, LIMITED; THE EQUITABLE TRUST Company of New York and Lyman Rhoades, as Trustees, and M. R. Kayes, Trustee (Defendants), and Frank T. Disney et al. (Intervenors), Appellants,

vs.

FRED W. GOODING, NOVINGER & DARRAH SHEEP COMPANY, LIMITED, a Corporation; T. B. Jones, J. H. Culbertson, N. W. Sine, W. L. Biggs, Louis Johnson, C. B. Hess, and Frank R. Gooding (Defendants), and The State of Idaho (Intervenor), Appellees.

*Citation on Appeal to the Supreme Court of the United States.*

To Fred W. Gooding, Novinger & Darrah Sheep Company, Limited, a corporation; T. B. Jones, J. H. Culbertson, N. W. Sine, W. L. Biggs, Louis Johnson, C. B. Hess, Frank R. Gooding, and The State of Idaho, Greeting:

You are hereby cited and admonished to be and appear in the Supreme Court of the United States in the City of Washington, within sixty days from the date of this Writ, pursuant to an appeal, duly allowed by the Circuit Court of Appeals for the Ninth Circuit, wherein The Idaho Irrigation Company, Limited, The Equitable Trust Company of New York, and Lyman Rhoades as Trustees, and M. R. Kayes, Trustee, and Frank T. Disney, Owen J. Brennan, Dave Engle, W. B. Joy, John F. Engle, L. H. Dysart, H. J. Leyson, George W. Wedgewood, E. L. Tate, Otto Schild, W. S. Smith, M. R. Kays, E. G. Molsee, T. M. Osborn, Frank L. Thomas, Wm. Roseberry, J. G. Wilmoth, W. D. Fales, R. W. Houston, Mrs. Monnie Clinger, Steve Ballard, Arthur W. Garrett, George W. Bowman, George F. Gorow, Bert Wyant, and Lillie Dale Wyant, H. D. Edwards, Mrs. J. C. Shafer, A. H. Bower, Elbert Sherman, Z. T. Spellman, J. M. Scott and Dionysius B. Kountanius, are Appellants and you are Appellees, to show cause, if any there be, why the decree rendered against the said Appellants, as in said appeal mentioned, should not be corrected and why speedy justice should not be done the parties in that behalf.

Witness, The Honorable William W. Morrow, United States Circuit Judge for the Ninth Circuit, this 27th day of April, A. D. 1923.

Wm. W. Morrow, United States Circuit Judge for the Ninth Circuit.

Service of the foregoing Citation and receipt of a copy thereof admitted this 30 day of April 1923.

W. G. Bissell, Karl Paine, by Snow, Branch Bird, Attorneys for Appellees. A. H. Conner, Attorney General of the State of Idaho, Herbert Wing, Assistant Attorney General, Attorneys for State of Idaho, Appellee.

[Endorsed:] 1057/29,607. No. 3797. United States Circuit Court of Appeals for the Ninth Circuit. The Idaho Irrigation Company, Limited, et al., Appellants, vs. Fred W. Gooding et al., Appellees. Citation of the Idaho Irrigation Company on Appeal to the Supreme Court of the United States. Filed May 3, 1923. F. D. Monckton, Clerk, By Paul P. O'Brien, Deputy Clerk. C. C. Richards & Haga, Boise, Idaho.

[Endorsed:] File No. 29,607. Supreme Court U. S. October Term, 1922. Term No. 1057. The Idaho Irrigation Co., Ltd., et al., Appellants, vs. Fred W. Gooding et al. Citation and Service. Filed May 8, 1923.





**United States**  
**Circuit Court of Appeals**  
**For the Ninth Circuit.**

THE IDAHO IRRIGATION COMPANY, LIMITED, THE EQUITABLE TRUST COMPANY OF NEW YORK, AND LYMAN RHOADES AS TRUSTEES, AND M. R. KAYES, TRUSTEE, AND FRANK T. DISNEY, OWEN J. BRENNAN, DAVE ENGLE, W. B. JOY, JOHN F. ENGLE, L. H. DYSART, H. J. LEYSON, GEORGE W. WEDGEWOOD, E. L. TATE, OTTO SCHILD, W. S. SMITH, M. R. KAYS, E. G. MOLSEE, T. M. OSBORN, FRANK L. THOMAS, WM. ROSEBERRY, J. G. WILMOTH, W. D. FALES, R. W. HOUSTON, MRS. MONNIE CLINGER, STEVE BALLARD, ARTHUR W. GARRETT, GEORGE W. BOWMAN, GEORGE F. GOROW, BERT WYANT, AND LILLIE DALE WYANT, H. D. EDWARDS, MRS. J. C. SHAFER, A. H. BOWER, ELBERT SHERMAN, Z. T. SPELLMAN, J. M. SCOTT and DIONYSIUS B. KOUNTANIUS,

Appellants,

vs.

FRED W. GOODING, NOVINGER & DARRAH SHEEP COMPANY, LIMITED, a Corporation, T. B. JONES, J. H. CULBERTSON, N. W. SINE, W. L. BIGGS, LOUIS JOHNSON, C. B. HESS and FRANK B. GOODING, and the STATE OF IDAHO,

Appellees.

Upon Appeal from the United States District Court for the District of Idaho, Southern Division.

**PROCEEDINGS HAD IN THE**  
**UNITED STATES CIRCUIT COURT OF APPEALS**  
**FOR THE NINTH CIRCUIT.**



In the United States Circuit Court of Appeals for  
the Ninth Circuit.

No. 3797.

THE IDAHO IRRIGATION COMPANY, LIMITED; THE EQUITABLE TRUST COMPANY OF NEW YORK, and LYMAN RHOADES, as Trustees, and Mr. M. R. KAYES, Trustee (Defendants), and FRANK T. DISNEY, et al. (Intervenors),  
Appellants,

vs.

FRED W. GOODING, NOVINGER & DARRAH SHEEP COMPANY, LIMITED, a Corporation; T. B. JONES, J. H. CULBERTSON, N. W. SINE, W. L. BIGGS, LOUIS JOHNSON, C. B. HESS and FRANK R. GOODING (Plaintiffs) and THE STATE OF IDAHO (Intervener),

Appellees.

### **Petition for Appeal.**

To the Honorable Judges of the United States Circuit Court of Appeals for the Ninth Circuit.

The above-named Fred W. Gooding, Novinger & Darrah Sheep Company, Limited, a corporation; T. B. Jones, J. H. Culbertson, N. W. Sine, W. L. Biggs, Louis Johnson, C. B. Hess and Frank R. Gooding (plaintiffs), and The State of Idaho (Intervener), Appellees, feeling themselves ag-

grieved by the decree and order made and entered by said Circuit Court of Appeals in the above matter under date of October 4th, 1922, "on appellant's petition for rehearing"; and also feeling themselves aggrieved by the decree and order of said court made and entered herein under date of February 19th, 1923, denying appellee's petition for rehearing and modification, do hereby appeal from said decrees and orders, and each of them, to the Supreme Court of the United States, for the reasons set forth in the assignments of error filed herewith, and it prays that its appeal be allowed and that a citation be issued as provided by law, and that a transcript of the record, proceedings and documents upon which said decisions were based, duly authenticated be sent to the Supreme Court of the United States, under the rules of such court and in such cases made and provided, and your petitioner further prays that the proper order relating to the security to be required of it be made.

Your petitioners respectfully allege that jurisdiction of the United States Circuit Court of Appeals for the Ninth Circuit depended upon the fact that the action involves the construction of an act of Congress approved August 18th, 1894, commonly known as the "Carey Act" and acts amendatory thereof; and that the amount involved herein and the matter in controversy exceeds the sum of \$3,000.00, besides costs, and this is not a case in

*The Idaho Irrigating Co., Limited, et al.* 3

which the jurisdiction of the Circuit Court of Appeals is made final.

W. G. BISSELL,  
BRANCH BIRD,  
W. T. STAFFORD,

Solicitors for Appellees, Address: Gooding, Idaho.

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Attorney General of the State of Idaho, and Its  
Solicitor Herein.

Address: Boise, Idaho.

[Endorsed]: No. 3797. United States Circuit Court of Appeals for the Ninth Circuit. The Idaho Irrigation Company, Limited, et al., Appellants, vs. Fred W. Gooding, et al., Appellees. Petition of Fred W. Gooding, et al., for Appeal to the Supreme Court U. S. Filed May 2, 1923. F. D. Monekton, Clerk. By Paul P. O'Brien, Deputy Clerk.

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In the United States Circuit Court of Appeals for  
the Ninth Circuit.

No. 3797.

THE IDAHO IRRIGATION COMPANY, LIMITED; THE EQUITABLE TRUST COMPANY OF NEW YORK, and LYMAN RHOADES, as Trustees, and M. R. KAYES, Trustee (Defendants), and FRANK T. DISNEY, et al. (Intervenors),

Appellants,

vs.

FRED W. GOODING, NOVINGER & DARRAH  
SHEEP COMPANY, LIMITED, a Corpo-

ration; T. B. JONES, J. H. CULBERTSON, N. W. SINE, W. L. BIGGS, LOUIS JOHNSON, C. B. HESS and FRANK R. GOODING (Plaintiffs) and The State of Idaho (Intervener).

Appellees.

**Assignment of Errors.**

Come now the appellees, Fred W. Gooding, Novinger & Darrah Sheep Company, Limited, a corporation; T. B. Jones, J. H. Culbertson, N. W. Sine, W. L. Biggs, Louis Johnson, C. B. Hess and Frank R. Gooding (Plaintiffs), and The State of Idaho (Intervener), in the above-entitled cause, and file the following assignment of errors upon which they will rely upon the prosecution of their appeal in the above-entitled and numbered cause from the order and decision made by the United States Circuit Court of Appeals for the Ninth Circuit on the 4th day of October, 1922, reversing in part the decision of the District Court of the United States for the Southern Division of the District of Idaho made and entered in said cause on December 20th, 1920; and upon which said appellees will rely in the prosecution of their appeal in the same cause from the order and decision made by said Circuit Court of Appeals under date of February 19th, 1923, whereby appellees' petition for rehearing and modification was denied:

1. That the United States Circuit Court of Appeals for the Ninth Circuit erred in making and

*The Idaho Irrigating Co., Limited, et al.* 5

entering said order and decision dated October 4th, 1922, for the following reasons, to wit:

A. That said order and decision of October 4th, 1922 is contrary to law, in that the 5322.26 acres of land, thereby permitted to participate in said water supply, was owned by the original defendants and stood on the public records in the names of said defendants at the time of the institution of the action, and, therefore, should be included in the injunction.

B. That said order of October 4th, 1922 is contrary to the findings of the District Court of the United States for the Southern Division of the District of Idaho, which findings said Circuit Court of Appeals had theretofore and in its original decision, filed in said matter August 7th, 1922, adopted without reservation.

C. That said order and decision of October 4th, 1922 permits 5322.26 acres of land to participate in the water supply of said project, while it denies other lands, of the same standing and footing in law, the privilege of sharing in said water supply.

2. That said United States Circuit Court of Appeals for the Ninth Circuit erred in making its order and decision dated February 19th, 1923, in said cause, whereby the petition of appellees herein for rehearing and modification of an order and decision of October 4th, 1922 was denied, for the following reasons, to wit:

A. That said order of February 19th, 1923 is contrary to law.

B. That said order of October 4th, 1922 materially altered the former decision of said United States Circuit Court of Appeals, to the great injury and prejudice of appellees, and the same was done upon an *ex parte* showing and hearing, and without notice to appellees.

WHEREFORE, said appellees pray that said orders and decisions in said cause dated October 4th, 1922 and February 19th, 1923, respectively, be reversed, and that said United States Circuit Court of Appeals for the Ninth Circuit be ordered to enter a decision affirming the decree of the District Court of the United States for the Southern Division of the District of Idaho.

W. G. BISSELL,  
BRANCH BIRD,  
KARL PAINE,  
W. T. STAFFORD,  
Solicitors for Appellees,  
Address: Gooding, Idaho.

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Attorney General of the State of Idaho and its solicitor herein.

Add. Boise, Ida.

[Endorsed]: No. 3797. United States Circuit Court of Appeals for the Ninth Circuit. The Idaho Irrigation Company, Limited, et al., Appellants, vs. Fred W. Gooding, et al., Appellees. Assignment of Errors on Appeal of Gooding, et al. Filed May



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*The Idaho Irrigating Co., Limited, et al.* 7

2, 1923. F. D. Monckton, Clerk. By Paul P. O'Brien, Deputy Clerk.

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In the United States Circuit Court of Appeals for  
the Ninth Circuit.

No. 3797.

THE IDAHO IRRIGATION COMPANY, LIMITED; THE EQUITABLE TRUST COMPANY OF NEW YORK, and LYMAN RHOADES, as Trustees, and M. R. KAYES, Trustee (Defendants), and FRANK T. DISNEY, et al. (Intervenors),  
Appellants,

vs.

FRED W. GOODING, NOVINGER & DARRAH SHEEP COMPANY, LIMITED, a Corporation; T. B. JONES, J. H. CULBERTSON, N. W. SINE, W. L. BIGGS, LOUIS JOHNSON, C. B. HESS and FRANK R. GOODING (Plaintiffs) and THE STATE OF IDAHO (Intervener),

Appellees.

**Order Allowing Appeal and Fixing Amount of Supersedeas Bond.**

On motion of W. G. Bissell, solicitor and counsel for appellees, Fred W. Gooding, Novinger & Darrah Sheep Company, Limited, a corporation; T. B. Jones, J. H. Culbertson, N. W. Sine, W. L. Biggs, Louis Johnson, C. B. Hess and Frank R. Gooding

(Plaintiffs) and The State of Idaho (Intervener), it is hereby ordered that an appeal to the Supreme Court of the United States from the decree and order made and entered by said Circuit Court of Appeals in the above matter under date of October 4th, 1922 "on appellant's petition for rehearing"; and from the decree and order of said court made and entered herein under date of February 19th, 1923 denying appellee's petition for rehearing and modification, reversing in part a decree of the United States District Court for the District of Idaho, Southern Division, be, and the same is, hereby allowed, and that a certified transcript of the record, testimony, exhibits, stipulations and all proceedings be forthwith transmitted to said Supreme Court of the United States. It is further ordered that the bond on appeal be fixed at the sum of \$500.00, the same to act as a supersedeas bond, and also as a bond for costs and damages on appeal.

Dated at San Francisco, California this 2d day of May, A. D. 1923.

WM. W. MORROW,  
U. S. Circuit Judge.

[Endorsed]: No. 3797. United States Circuit Court of Appeals for the Ninth Circuit. The Idaho Irrigation Company, Limited, et al., Appellants, vs. Fred W. Gooding, et al., Appellees. Order Allowing Appeal of Gooding, et al., and Fixing Amount of Supersedeas Bond. Filed May 2, 1923. F. D. Monckton, Clerk. By Paul P. O'Brien, Deputy Clerk.

*The Idaho Irrigating Co., Limited, et al.* 9

In the United States Circuit Court of Appeals for  
the Ninth Circuit.

No. 3797.

THE IDAHO IRRIGATION COMPANY, LIMITED; THE EQUITABLE TRUST COMPANY OF NEW YORK, and LYMAN RHOADES, as Trustees, and M. R. KAYES, Trustee (Defendants), and FRANK T. DISNEY, et al. (Interveners),  
Appellants.

vs.

FRED W. GOODING, NOVINGER & DARRAH SHEEP COMPANY, LIMITED, a Corporation; T. B. JONES, J. H. CULBERTSON, N. W. SINE, W. L. BIGGS, LOUIS JOHNSON, C. B. HESS and FRANK R. GOODING (Plaintiffs) and THE STATE OF IDAHO (Intervener),

Appellees.

**Supersedeas Order.**

This cause came on to be heard on this 2d day of April, A. D. 1923, upon the application of the Appellees, Fred W. Gooding, Novinger & Darrah Sheep Company, Limited, a corporation; T. B. Jones, J. H. Culbertson, N. W. Sine, W. L. Biggs, Louis Johnson, C. B. Hess and Frank R. Gooding (Plaintiffs) and The State of Idaho (Intervener) for an appeal to the Supreme Court of the United States, from the decree and order made and

entered by said Circuit Court of Appeals in the above matter under date of October 4th, 1922, "on appellant's petition for rehearing"; and from the decree and order of said court made and entered herein under date of February 19th, 1923, denying appellee's petition for rehearing and modification, and said appeal having been allowed and the parties having stipulated with respect to a supersedeas order, it is ordered that the appeal shall operate as a supersedeas as provided by law, and the clerk is hereby directed to stay the mandate of the United States Circuit Court of Appeals for the Ninth Circuit, until further ordered by this court.

Dated at San Francisco, California this 2d day of May, A. D. 1923.

WM. W. MORROW,  
U. S. Circuit Judge.

[Endorsed]: No. 3797. United States Circuit Court of Appeals for the Ninth Circuit. The Idaho Irrigation Company, Limited, et al., Appellants, vs. Fred W. Gooding, et al., Appellees. Supersedeas Order on Appeal of Gooding et al. Filed May 2, 1923. F. D. Monekton, Clerk. By Paul P. O'Brien, Deputy Clerk.

*The Idaho Irrigating Co., Limited, et al.* 11

In the United States Circuit Court of Appeals for  
the Ninth Circuit.

No. 3797.

**THE IDAHO IRRIGATION COMPANY, LIMITED; THE EQUITABLE TRUST COMPANY OF NEW YORK, and LYMAN RHOADES, as Trustees, and Mr. R. KAYES, Trustee (Defendants), and FRANK T. DISNEY, et al. (Interveners),**  
Appellants,

vs.

**FRED W. GOODING, NOVINGER & DARRAH SHEEP COMPANY, LIMITED, a Corporation; T. B. JONES, J. H. CULBERTSON, N. W. SINE, W. L. BIGGS, LOUIS JOHNSON, C. B. HESS and FRANK R. GOODING (Plaintiffs) and THE STATE OF IDAHO (Intervener),**

Appellees.

**Bond on Appeal.**

KNOW ALL MEN BY THESE PRESENTS,  
That we, Fred W. Gooding, Novinger & Darrah Sheep Company, Limited, a corporation; T. B. Jones, J. H. Culbertson, N. W. Sine, W. L. Biggs, Louis Johnson, C. B. Hess and Frank R. Gooding (Plaintiffs) and the State of Idaho (Intervener), as principal and National Surety Company, a corporation, duly organized under and by virtue of the laws of the State of New York, and authorized to

do surety business in the State of Idaho, sureties, obligors are held and firmly bound unto the above named The Idaho Irrigation Company, Limited; The Equitable Trust Company of New York, and Lyman Rhoades, as Trustees, and M. R. Kayes, Trustee (Defendants), and Frank T. Disney, et al., (Intervenors), obligee in the sum of five hundred dollars (\$500.00) to be paid to, and for the payment of which, well and truly to be made, we bind ourselves, and each of us, and each of our successors, jointly and severally by these presents. Sealed with our seals and dated this 18th day of April, A. D. 1923.

Whereas, the above-named principal, obligors, seek to prosecute their appeal to the Supreme Court of the United States to reverse the decree and order made and entered by said Circuit Court of Appeals in the above matter under date of October 4th, 1922, "on appellant's petition for rehearing;" and from the decree and order of said court made and entered herein under date of February 19th, 1923, denying appellee's petition for rehearing and modification, reversing in part the decree of the District Court of the United States for the District of Idaho, Southern Division, made and entered on the 7th day of May, 1921; now therefore the conditions of this obligation are such that if the above-named principal, obligors, shall prosecute their appeal to effect and answer all costs of damages, if they shall

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fail to make good their plea then this obligation shall be and remain in full force and effect.

FRED W. GOODING,  
 NOVINGER & DARRAH SHEEP CO.,  
 T. B. JONES,  
 J. H. CULBERTSON,  
 N. W. SINE,  
 W. L. BIGGS,  
 LOUIS JOHNSON,  
 FRANK R. GOODING,  
 By W. G. BISSELL,

Their Attorney.

NATIONAL SURETY CO.

[Seal]

By E. R. BOTTE,  
 Its Attorney in Fact.  
 By BRANCH BIRD,  
 Its Attorney in Fact.

Form of bond and sufficiency of sureties approved this 2d day of May, 1923.

WM. W. MORROW,  
 United States Circuit Judge.

[Endorsed]: No. 3797. United States Circuit Court of Appeals for the Ninth Circuit. The Idaho Irrigation Company, Limited, et al., Appellants, vs. Fred W. Gooding, et al., Appellees. Bond on Appeal of Gooding et al. Filed May 2, 1923. F. D. Monckton, Clerk. By Paul P. O'Brien, Deputy Clerk.

In the United States Circuit Court of Appeals for  
the Ninth Circuit.

No. 3797.

THE IDAHO IRRIGATION COMPANY, LIMITED; THE EQUITABLE TRUST COMPANY OF NEW YORK, and LYMAN RHOADES, as Trustees, and M. R. KAYES, Trustee (Defendants), and FRANK T. DISNEY, et al. (Intervenors),

Appellants,

vs.

FRED W. GOODING, NOVINGER & DARRAH SHEEP COMPANY, LIMITED, a Corporation; T. B. JONES, J. H. CULBERTSON, N. W. SINE, W. L. BIGGS, LOUIS JOHNSON, C. B. HESS and FRANK R. GOODING (Plaintiffs) and THE STATE OF IDAHO (Intervener),

Appellees.

**Stipulation in Lieu of Praecept for Transcript.**

IT IS HEREBY STIPULATED AND AGREED, by and between the undersigned as follows:

1. That this stipulation shall be in lieu of and serve the same purpose as the praecipe to the clerk, as provided for by Rule 8 of the Rules of the Supreme Court of the United States, the making and filing of which praecipe is hereby expressly waived.

2. That the transcript of the record made and filed in the United States Circuit Court of Appeals for the Ninth Circuit, in this cause shall be and



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constitutes the transcript of the record of the same cause for filing in the Supreme Court of the United States in connection with the appeal of the appellees herein from those certain orders and decisions made and entered by said Circuit Court of Appeals in said cause under dates of October 4th, 1922, and February 19th, 1923.

3. That there shall be added to and made a part of said transcript of the record as the same was filed in said Circuit Court of Appeals true copies of the decisions of the Circuit Court of Appeals in said matter, and true copies of all orders made by said Circuit Court of Appeals in said matter, together with all stipulations, orders, petitions, bonds, assignments of error, citations, acknowledgments of service, certificate of the clerk of said Circuit Court of Appeals as to the transcript of record upon said appeal, and all other papers or documents filed in said cause in connection with the appeal mentioned in the preceding paragraph to the Supreme Court of the United States. Also a true copy of the Motion for Reconsideration of the Supplemental Opinion.

4. That each of the undersigned hereby acknowledge receipt of a copy of this stipulation.

W. G. BISSELL,  
BRANCH BIRD,  
KARL PAINE,  
Solicitors for Appellees,  
Address: Gooding, Idaho.  
RICHARDS & HAGA,  
E. A. WALTERS,  
Solicitors for Appellants.

[Endorsed]: No. 3797. United States Circuit Court of Appeals for the Ninth Circuit. The Idaho Irrigation Company, Limited, et al., Appellants, vs. Fred W. Gooding, et al., Appellees. Stipulation in Lieu of Praecipe of Transcript of Record on Appeal of Fred W. Gooding, et al. Filed May 2, 1923. F. D. Monckton, Clerk. By Paul P. O'Brien, Deputy Clerk.

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In the United States Circuit Court of Appeals for  
the Ninth Circuit.

No. 3797.

THE IDAHO IRRIGATION COMPANY, LIMITED; THE EQUITABLE TRUST COMPANY OF NEW YORK, and LYMAN RHOADES, as Trustees, and M. R. KAYES, Trustee (Defendants), and FRANK T. DISNEY, et al. (Interveners),

Appellants,

vs.

FRED W. GOODING, NOVINGER & DARRAH SHEEP COMPANY, LIMITED, a Corporation; T. B. JONES, J. H. CULBERTSON, N. W. SINE, W. L. BIGGS, LOUIS JOHNSON, C. B. HESS and FRANK R. GOODING (Plaintiffs) and THE STATE OF IDAHO (Intervener),

Appellees.

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**Acknowledgment of Service of Order Allowing  
Appeal, etc.**

We, the undersigned, attorneys of record for the appellants in the above-entitled action do hereby acknowledge due service this 28 day of April, 1923, of copies of the following papers in said action, relating to the appeal to the Supreme Court of the United States:

1. Petition for Appeal.
2. Assignments of Error.
3. Stipulation for Supersedeas Order.
4. Bond on Appeal.
5. Stipulation as to Amount of Appeal Bond.
6. Stipulation in Lieu of Praecipe.

**RICHARDS & HAGA,**  
Solicitors for Appellants.

[Endorsed]: No. 3797. United States Circuit Court of Appeals for the Ninth Circuit. The Idaho Irrigation Company, Limited, et al., Appellants, vs. Fred W. Gooding, et al., Appellees. Acknowledgment of Service of Order Allowing Appeal, etc., of Gooding, et al. Filed May 2, 1923. F. D. Monckton, Clerk. By Paul P. O'Brien, Deputy Clerk.

In the United States Circuit Court of Appeals for  
the Ninth Circuit.

No. 3797.

THE IDAHO IRRIGATION COMPANY, LIMITED; THE EQUITABLE TRUST COMPANY OF NEW YORK, and LYMAN RHOADES, as Trustees, and M. R. KAYES, Trustee (Defendants), and FRANK T. DISNEY, et al. (Intervenors),

Appellants,

vs.

FRED W. GOODING, NOVINGER & DARRAH SHEEP COMPANY, LIMITED, a Corporation; T. B. JONES, J. H. CULBERTSON, N. W. SINE, W. L. BIGGS, LOUIS JOHNSON, C. B. HESS and FRANK R. GOODING (Plaintiffs) and THE STATE OF IDAHO (Intervener),

Appellees.

**Acknowledgment of Service of Papers on Appeal.**

We, the undersigned, attorneys of record for the appellants in the above-entitled action do hereby acknowledge due service this 2d day of May, 1923, of copies of the following papers in said action, relating to the appeal to the Supreme Court of the United States:

1. Order Allowing Appeal.
2. Supersedeas Order.
3. Citation on Appeal.

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4. Certificate of Clerk of the United States Circuit Court of Appeals for the Ninth Circuit to Transcript of Record Upon Appeal to the Supreme Court of the United States.

RICHARDS & HAGA,  
Solicitors for Appellants.

[Endorsed]: No. 3797. United States Circuit Court of Appeals for the Ninth Circuit. The Idaho Irrigation Company, Limited, et al., Appellants, vs. Fred W. Gooding, et al., Appellees. Acknowledgment of Service of Papers on Appeal of Gooding, et al. Filed May 2, 1923. F. D. Monckton, Clerk. By Paul P. O'Brien, Deputy Clerk.

In the United States Circuit Court of Appeals  
for the Ninth Circuit.

No. 3797.

**THE IDAHO IRRIGATION COMPANY, LIMITED; THE EQUITABLE TRUST COMPANY OF NEW YORK, and LYMAN RHOADES, as Trustees, and M. R. KAYES, Trustee (Defendants), and FRANK T. DISNEY, et al. (Interveners),**

**Appellants,**

**vs.**

**FRED W. GOODING, NOVINGER & DARRAH SHEEP COMPANY, LIMITED, a Corporation; T. B. JONES, J. H. CULBERTSON, N. N. SINE, W. L. BIGGS, LOUIS JOHNSON, C. B. HESS and FRANK R. GOODING (Plaintiffs) and THE STATE OF IDAHO (Intervener),**

**Appellees.**

**Certificate of Clerk of the United States Circuit Court of Appeals for the Ninth Circuit to Transcript of Record Upon Appeal to the Supreme Court of the United States.**

I, Frank D. Monekton, as Clerk of the United States Circuit Court of Appeals for the Ninth Circuit, do hereby certify the foregoing nineteen (19) pages, numbered from and including 1 to and including 19, to be a full, true and correct copy of the record under Rule 8 of the Supreme Court of the United States, and under the stipula-

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tion filed herein, in the above-entitled cause, including the assignments of errors on the appeal of Fred W. Gooding et al. to the Supreme Court of the United States, as the originals thereof remain on file and appear of record in my office, and that the same constitutes the transcript of the record upon the appeal of Fred W. Gooding et al., to the Supreme Court of the United States in said cause.

Attest my hand and the seal of the United States Circuit Court of Appeals for the Ninth Circuit, at the City of San Francisco, State of California, this 8th day of May, 1923.

[Seal]

FRANK D. MONCKTON,

Clerk.

By Paul P. O'Brien,

Deputy Clerk.





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In the United States Circuit Court of Appeals for  
the Ninth Circuit.

No. 3797.

**THE IDAHO IRRIGATION COMPANY, LIMITED; THE EQUITABLE TRUST COMPANY OF NEW YORK, and LYMAN RHOADES, as Trustees, and M. R. KAYES, Trustee (Defendants), and FRANK T. DISNEY, et al., (Intervenors),**

**Appellants,**

**vs.**

**FRED W. GOODING, NOVINGER & DARRAH SHEEP COMPANY, LIMITED, a Corporation; T. B. JONES, J. H. CULBERTSON, N. W. SINE, W. L. BIGGS, LOUIS JOHNSON, C. B. HESS and FRANK R. GOODING (Plaintiffs) and THE STATE OF IDAHO (Intervener),**

**Appellees.**

**Citation on Appeal.**

United States of America,—ss.

To the Idaho Irrigation Company, Limited; The Equitable Trust Company of New York, and Lyman Rhoades, as Trustees, and M. R. Kayes, Trustee (Defendants), and Frank T. Disney, et al. (Intervenors), **GREETING:**

You are hereby cited and admonished to be and appear at the Supreme Court of the United States to be held in the City of Washington, in the District of Columbia on the 2d day of July, 1923, pur-

suant to an order allowing an appeal filed and entered in the clerk's office of the United States Circuit Court for the Ninth Circuit, from those certain orders and decisions made and entered in said Circuit Court of Appeals on the 4th day of October, 1922 and the 19th day of February, 1923, respectively, in the above numbered and entitled cause, wherein you are the appellants, to show cause, if any there be, why the orders and decisions of the United States Circuit Court of Appeals so made and entered on the dates aforesaid, reversing in part the decree rendered against the said appellants as in said order allowing appeal mentioned, should not be corrected and why justice should not be done to the parties on their behalf.

WITNESS the undersigned, one of the Judges of the United States Circuit Court of Appeals for the Ninth Circuit, this 2d day of May, 1923, at San Francisco, California.

WM. W. MORROW,

Judge of the United States Circuit Court of Appeals for the Ninth Circuit.

Service of foregoing citation admitted,

RICHARDS & HAGA,

Attys. for Appellants Above Named.

[Endorsed]: No. 3797. United States Circuit Court of Appeals for the Ninth Circuit. The Idaho Irrigation Company, Limited, et al., Appellants, vs. Fred W. Gooding, et al., Appellees. Citation on Appeal of Fred W. Goeding, et al. to Supreme Court U. S. Filed May 2, 1923. F. D. Monekton, Clerk. By Paul P. O'Brien, Deputy Clerk.

Endorsed on cover: File Nos. 29,607, 29,633. U. S. Circuit Court of Appeals, Ninth Circuit. Term No. 1057. The Idaho Irrigation Company, Ltd.; The Equitable Trust Company of New York, and Lyman Rhoades, as Trustees, et al., appellants, vs. Fred W. Gooding, Novinger & Darrah Sheep Company, Ltd.; T. B. Jones et al. (Filed May 7th, 1923.) Term No. 1083. Fred W. Gooding, Novinger & Darrah Sheep Company, Ltd.; T. B. Jones et al., appellants, vs. The Idaho Irrigation Company, Ltd.; The Equitable Trust Company of New York, and Lyman Rhoades, as Trustees, et al. Filed May 22nd, 1923. File Nos. 29,607, 29,633.

(9468)